MILITARY INTELLIGENCE

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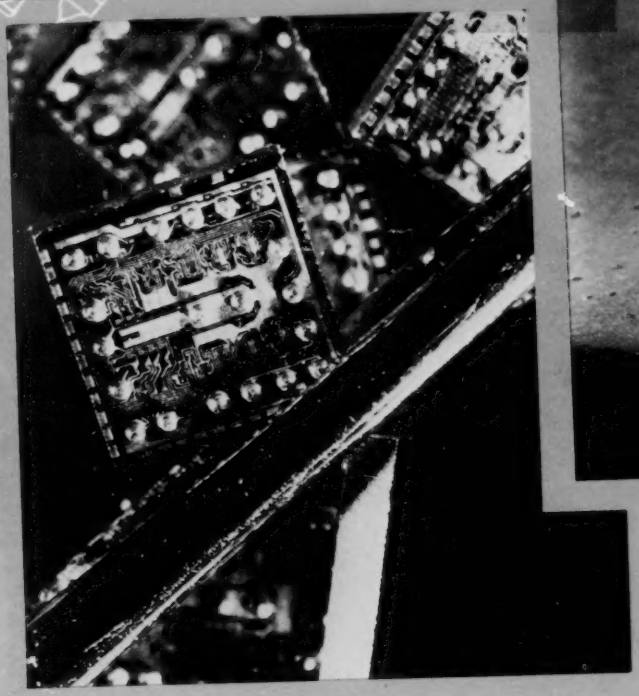

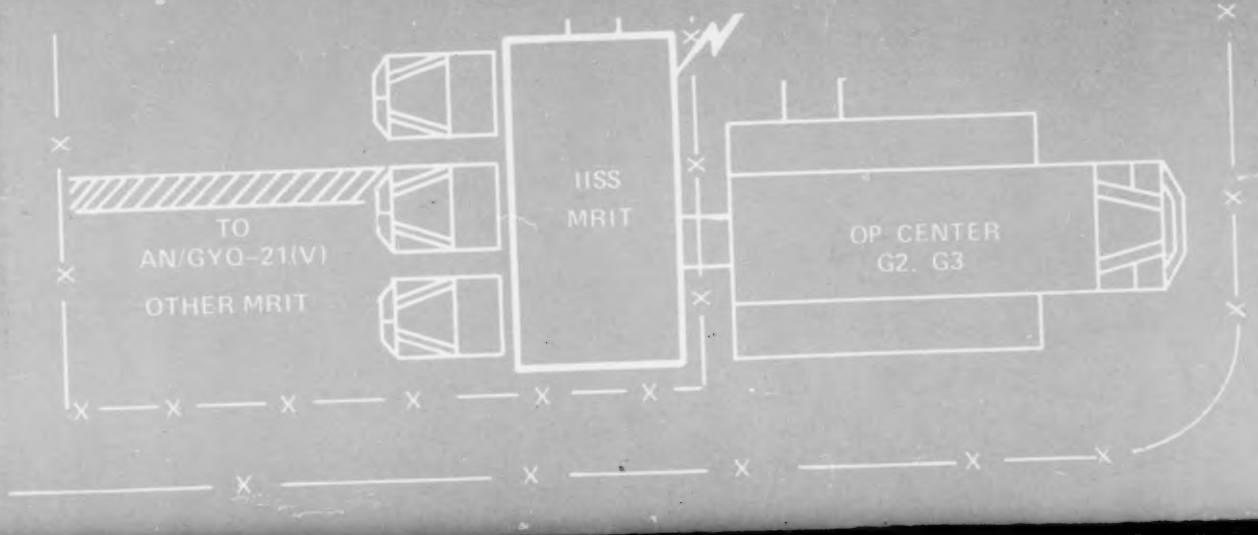

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Autovon 879-2223

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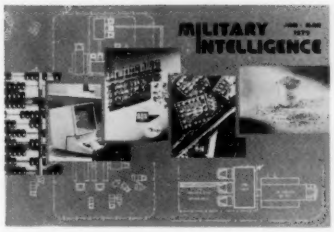

COVER:

The theme of this issue, *Computer Applications to Intelligence,* is represented by diagrams of Type IISS Supported Main Command Post and Tactical Operations Center Configurations. The photographs superimposed upon these diagrams depict some milestones in the development of the computer.

From right to left: a thimble contains 50,000 chip transistors small enough to fit through the eye of a needle. Replacing bulky and energy-inefficient vacuum tubes and their successors, the SMS Card and SLT Modules, these chips are revolutionizing the computer world and allowing the development of man-portable computers for military use. The man at the keyboard of the IBM System 360 Model 40 may be tomorrow's S2. The abacus, the world's first "computer," (pictured at the far left) was invented some 3,000 years ago.

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MI STAFF:

Editor: Lt Joe Loughran
Graphics Designer: Ms Dee D. Jones

MILITARY INTELLIGENCE
(USPS017-030)

Volume 5, No. 1

Published quarterly by the US Army Intelligence Center and School under the provisions of Chapter 5 of AR 310-1 as a professional development resource for military and civilian intelligence personnel and as a forum for thought provoking articles of interest to the military and civilian intelligence communities. Unless otherwise stated, the ideas presented do not represent official policy or indorsement by any agency of the US Army or Department of Defense. Use of funds for printing Military Intelligence was approved by Department of Army in December 1975. Controlled circulation, postage paid at Sierra Vista, Arizona. Subscription rates: 1 year — $6.00; foreign rates — 1 year — $8.00.

MILITARY INTELLIGENCE
BOX 569
Ft. Huachuca, AZ 85613
Telephone:
Autovon 879-3033
Commercial (602) 538-3033

from the COMMANDER

by BG Albert N. Stubblebine, III

The impact of the computer is one of the most significant events of this half century. Computers are used, with or without the awareness of the user, in everything from factory assembly lines to children's toys. They free mankind from dull, repetitive tasks, speed time-consuming processes, and enhance production.

Increasingly, that impact is being felt in the tactical Army. With new technology and the advent of mini and micro computers, the capability to transport, use, and depend on computers in a battlefield environment has become a reality.

The Army is rapidly progressing beyond the traditional use of computers for administration and logistics. Computer-assisted systems are either fielded or in development for most functional areas of the battlefield. In target acquisition, fire planning, command and control, and many other areas, computers are becoming an important asset in increasing our combat effectiveness.

The intelligence community is actively involved in this tactical computer revolution. In the near term, extensive use of automated assist for search and acquisition, data base retrieval, and other imbedded functions in both SIGINT and IMINT systems is being planned. This automation will dramatically increase the speed, accuracy, and target capacity of our systems; moreover, because of current manpower restrictions, automation can enable maximum utilization of the operators and analysts without the drudgery of repetitive menial tasks.

For the future, automation holds exciting possibilities for intelligence beyond data bases and technical assistance. The process of analysis contains procedures which can and should be automated. The volume of intelligence reports and the anticipated speed of future battles demand that automation be employed wherever possible. The techniques of Intelligence Preparation of the Battlefield (e.g., critical node analysis, templating) are particularly suited to automation. Some prototype software for an All Source Analysis System (ASAS) has already been developed. This software demonstrates the feasibility of automating templating techniques, including analysis of signatures, doctrinal rates of advance, terrain and weather constraints, and critical nodes. Programs which assist in collection management, force employment, interdiction planning, and OPSEC, also exist. These programs have not exhausted the possible applications which could support the commander, and work is continuing on the further development and definition of ASAS.

The role of automation in intelligence is not limited to the battlefield. An ASAS emulator is being planned. The emulator coupled with simulations of collection assets and threat will be a valuable asset to the combat developer in defining requirements and to the trainer in preparing analysts for the automated battlefield.

Automation is necessary for the intelligence organization of the next battle, but it is not without its attendant problems. A major question is maintenance. The computers of the past were kept stationary in climate-controlled rooms. The computers of the future will be in trucks and in tracked vehicles, moving cross-country in inaccessible areas. We must have an organizational structure which can provide responsive support to not only the equipment (hardware) but also the programs and routines (software) which are subject to problems and changes. This problem is being examined at many levels within the Army, and I am confident it can be solved.

Another question is in the area of interoperability. Obviously, the intelligence, target servicing, and command and control functions must communicate in a timely manner through automated links. But the establishment of interoperability between systems poses questions of formats, priorities, and when and where to put the "man in the loop." A high priority for USAICS is the development of the appropriate systems interfaces, both among intelligence systems and between intelligence and other functional areas.

One key to the solution of maintenance, interoperability, and other problems is standardization. Many programs are under way to standardize equipment, formats, data elements, and procedures. As these programs are implemented, many of the current problems will be signficantly reduced.

As more systems are fielded and standardization and interoperability increase, the battlefield will not look like a collection of individual systems but will resemble a distributed network, with interactive nodes, providing mutual support and backup capabilities. It is then that the full value of automation as a combat multiplier will be realized. It is our job to work for the successful attainment of the goal.

FEEDBACK

General Stubblebine,

The Bullard/Martin article, "Foreign Area Officer Program: A Critique," in the Oct-Dec 78 edition of Military Intelligence proposed the establishment of a FAO training detachment at the Naval Postgraduate School in Monterey, California. Unfortunately, the authors seemed to ignore the FAO training facility already in being at the US Army Institute for Military Assistance (USAIMA), Fort Bragg, North Carolina.

USAIMA's School of International Studies conducts a 22-week Foreign Area Officer Course (FAOC) designed as the basic entry for officers in the FAO specialty. The FAOC POI integrates area studies and language training with methodological techniques in the fields of political science, economics, sociology, and international relations. The School of International Studies faculty consists of officers with graduate degrees in all of these functional areas. The five Area Seminar Directors have extensive field experience in their respective areas of expertise and provide comprehensive counseling and guidance for student FAO's.

FAOC should be the first step for officers entering the FAO specialty. The background and experiences gained from FAOC provide the sound basis needed for students going on to graduate schooling and in-country training to plan intelligently, their study programs.

Jack V. Mackmull
Major General, USA
Commandant

Editor,

Your magazine is a most excellent publication. It keeps us in touch with things where "cleats meet the ground."

Enjoyed your report on Reforger 77. If the national systems can help the tactical intelligence problem, realistic exercises can help prove it, but we must make certain we can task them. . .

Keep up the great writing and reporting.

Sincerely,
MG Rockly Triantafellu,
USAF (Ret.)

Thank you very much, sir.

The Staff

Editor:

I found the article "EW Training at the MCAGCTC" by Cpt Stewart to be very interesting. However, I would like to point out several errors/omissions in the article.

First, Communications Security (COMSEC) is not conducted against a force by outside operators. COMSEC is a term encompassing all those measures an operator may take to protect and continue his communications.

Second, protecting wirelines by the use of marked lanes is not realistic. The use of marked lanes highlights one of the two major problems associated with battlefield wireline communications. The wires are both easily destroyed by friendly vehicles and easily tapped by COMINT operators working behind the lines.

The third aspect of the article I wish to address is the lack of any mention of speech security equipment use by the friendly force. Did the exercise forces utilize their organic on-line encryption systems? Or their software encryption systems? These systems are the best defense against COMINT and ICD. Yet no mention of these items was made in the article.

If we are to discuss integration of EW training, we must discuss the entire EW spectrum. ECM is only as effective as the ECCM procedures taken, both preventive and remedial, allow it to be. As the Signal Security Advisor to the 11th Armored Cavalry Regiment, I am very interested in the integration of EW training and look forward to these articles in MI Magazine.

Carl A. Sawyer
SSG, USA
Det D(Fwd), 201st ASA Co

Editor:

I have read the magazine with great interest during the past year. Not all articles are of direct interest to me as an Air Force intelligence officer. But almost all have some interest for me. I have found each issue a fruitful source of ideas and, often, the spark to a useful insight.

And insights, in our profession, are unfortunately rare these days. I appreciate the effort you and your contributors put into the magazine.

Charles J. Barker

THE COMPUTER WORLD:

AN INTRODUCTION

by

CPT William J. Pyrek

Computers and computer technology are inextricably interwoven in the fabric of modern life. The electronic gadgetry which (we are led to believe) can do anything and everything, was actually created in response to the enormous amounts of information we must use every day.

In order to fully appreciate computers, their technology and their growing importance to the intelligence community, one must first understand the basics of their development and use.

Our "basics" include an understanding of computer development, computer terminology, the functions and methods of information processing, and the implications and potential problem areas encountered when dealing with computers in a computerized world.

In this article, I intended to explain, in layman's terms, the basics of Automatic Data Processing (ADP), the life support system of the creature we call the computer world.

Introduction

Most of us have at one time or another experienced a need of ADP in the uneasy feeling of "drowning" in paperwork. The paperwork avalanche continues to grow, however, and each day it requires the full attention of more and more members of the work force.

In 1870, only one in every 160 workers in American industry performed clerical functions — today the ratio is one in four.[1]

The sheer growth of information, coupled with our limited ability to recall it all unaided and the necessity of "keeping track" has led to the birth of ADP.

ADP is older than you think. It can be traced back thousands of years to when beads were first strung on a reed. However simplistic, the beads actually mechanized the process of working with quantities and led ultimately to the development of the abacus (see figure 1) in Babylon or Egypt. The beaded reed and

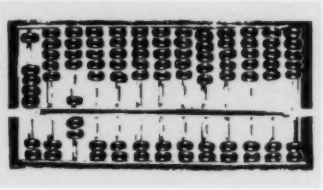


FIGURE 1. Abacus. Where Computing Began.

the abacus represented man's first attempts to reduce his mental and manual workloads.[2] Man's desire to reduce work requirements is thus the first ingredient required by the recipe for ADP.

In 1847, an Englishman named George Boole developed a method for expressing logic, or formal reasoning, in mathematical terms. His logic was expressed in terms of 1's and 0's and later led to the development of rules for addition, subtraction, multiplication and division. Boolean algebra, another ingredient, is used today to design computer circuitry because the most logical current arrangements must be determined and used in this process.[3]

When Dr. Herman Hollerith developed the Hollerith Code in the 1880's, he brought ADP a step closer to its modern-day fulfillment. Hollerith's system used three by five inch corner-cut cards which were divided into quarter inch squares, a hole punch, a pin press, electromagnetic counters and a sorting box. His system could process 50 to 80 cards a minute and was first applied in the tabulation of the 1890 census. While manual tabulation of the 1880 census had taken nearly eight years, the Hollerith process reduced tabulation time to two and one half years. Thus, years before computers were actually developed,

1. Subcourse DP 130-1, Subj: Introduction to Automatic Data Processing, Edition 5, July, 1975, US Army Institute of Administration, Ft. Benjamin Harrison, IN 46216, pg 1.

2. Ibid, pg 2.
3. Ibid, pg 3.

punched card equipment was utilized to process data automatically.[4]

The diode vacuum tube invented by Englishman John Fleming in 1904 provided the final ingredient in the ADP development process. This tube changed alternating current to direct current through a rectifying process in which current passed through the tube in only one direction.[5]

The first automatic computer, the Harvard Mark I, resulted from Army-sponsored research at Harvard University in 1944. While the Mark I did not use vacuum tubes, it could perform addition and subtraction electromagnetically in three-tenths of a second, store numbers up to 23 digits/decimals, use punch cards for input and perform long sequences of arithmetical and logical operations accommodating an externally stored program.[6]

The Electronic Numerical Integrator and Calculator (ENIAC) was designed in 1945 and became the first electrical digital (high-speed) computer. It was the first to use electronic (vacuum) tubes for calculating, was plugboard programmed, and could execute 5,000 additions a second involving 10 decimal/digit numbers.[7]

The growth process of computers and ADP since 1947 can best be explained by grouping development into three generations.

First Generation

These were business-type computers introduced during the mid-1950's. Technical characterization of this generation is associated with the vacuum tube. A lot of floor space and electrical power were required to feed the thousands of vacuum tubes used. Reliability was low because of the short lifespan of the tubes. Strict air conditioning control was an absolute must. Operating speeds were measured in seconds or milli-seconds (thousandths of a second). Very few first generation computers remain in use today.

Second Generation

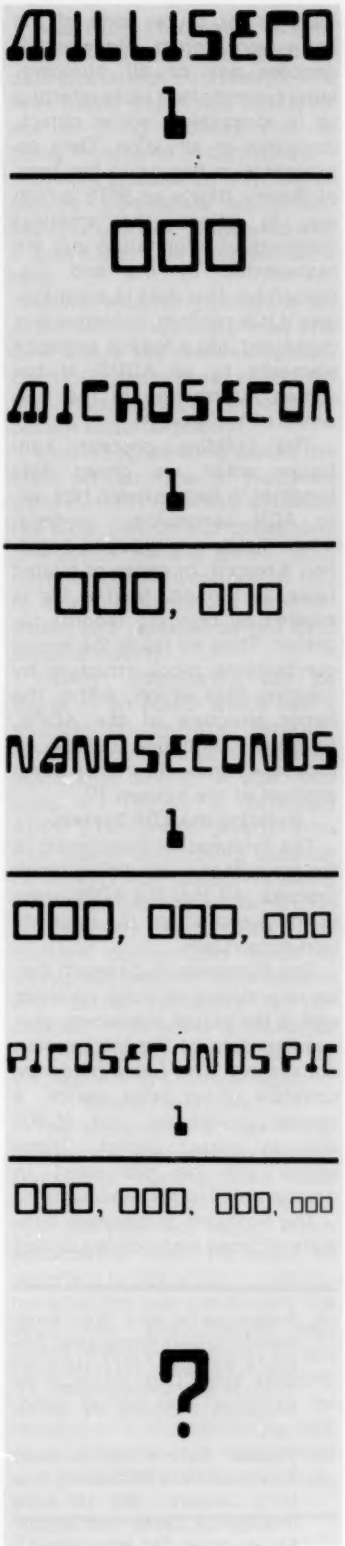
With the development of the transistor in 1957, solid state circuitry provided the technology required for second generation computers. Speed and reliability increased because machine size and power/air conditioning requirements were reduced. Circuitry was simplified through the use of printed circuit boards which were easily interchanged. Shortly after the development of the transistor, magnetic storage became possible. These improvements allowed second generation computers to operate in microseconds (millionths of a second). Many second generation computers remain in use today.

Third Generation

The development of third generation computers began in 1964 and continues today. Microcircuitry reduced the size of electronic components significantly and resulted in the development of monolithic integrated circuitry or "chips." The consolidation of functions in much smaller spaces resulted in increased reliability and operating speed at significant cost savings. The operating speed/time of these computers is measured in nanoseconds (billionths of a second). The improvement process continues today through integration of chips into complex arrays and allows for the reduction of signal travel time between circuits, thus increasing operating speeds (introducing a further refinement of time measurement in the picosecond or trillionth of a second).[8]

Basic Terminology

Information to be utilized within an Automatic Data Processing System (ADPS) is put together like a series of building blocks. Several times so far the simple term *data* has been used — but what is *data*? The word



4. Ibid, pg 3.
5. Ibid, pg 3.
6. Ibid, pgs 3-4.
7. Ibid, pg 4.
8. Ibid, pgs 4-5.

itself is the plural form of the Latin word *datum*. Generally it denotes any or all numbers, letters, symbols or facts referring to or describing some object, condition or situation. Data representation begins in the form of Binary Digits or BITS which are, in effect, the smallest elements of information and are represented by 0's and 1's. Remember that data is meaningless if it is random, but when it is organized into a logical series of elements by an ADPS, it becomes information in the true sense of the word.[9]

The building process continues when we group data together to form a basic fact, or, in ADP teminology, a *field*. When fields are grouped together, a *record*, or series of related facts, is formed. Next a *file* is created by bringing records together. Thus we reach the top of our building block structure by creating files which, within the larger structure of the ADPS, form the information that can be processed and delivered as a real product of the system.[10]

Building the ADP System

The Information Subsystem is the product of our building block process. All that the ADPS uses is contained within the information subsystem.

The Hardware Subsystem can be very simple or quite complex and is the actual machinery processing data of the information subsystem. The basic hardware consists of an input device, a central processing unit (CPU) and an output device. These terms will be discussed in greater detail in the next section.

The Software Subsystem consists of those instructions telling the ADPS what to do. Programs are developed to solve certain problems or perform specific functions; these programs are groupings of related operating instructions. Routines may be contained within programs which tell the ADPS what to do when certain specifics occur, possibly on a repetitive basis or based upon a decision process. Finally, software documents why something is done (thus providing "evidence" for reference or further development when/if necessary).

The Personnel Subsystem includes those individuals working the ADPS such as programmers, key punch personnel, systems analysts, maintenance personnel, computer specialists and managers. These personnel must interact correctly to make the ADPS function properly. ADPS is only as good as the people operating it. The system itself should not be blamed when things go wrong; it is the personnel operating the equipment or providing its instructions who make mistakes.

The Communications Subsystem moves data from one point to another, either within or outside the ADPS. This subsystem is comprised of the link between the input point (through the processing unit) and the output point. It can be more complex depending upon the structure of the ADPS itself. Depending upon the distance between elements of the system, the communications subsystem might include simple electrical conduit, long distance leased telephone lines, hardened cable paths, complex telecommunications systems and the like.[11]

Functional Components

The ADPS performs its function through elements of those subsystems just described. In order to better understand hardware, and without addressing brand names, an explanation of the input devices, storage units, arithmetic and logic units, control unit and output devices comprising this subsystem would be important. Input and output (I/O) devices can be described together because of their similarity but the remaining elements can be grouped under the terminology of the Central Processing Unit (CPU).

An input device enters data into a computer while an output device transmits the data from one. Let's take a closer look at the various types that exist. A card reader can be mechanical or optical and is used for input only. A card punch is an output device which normally punches 300-400 cards per minute. A combination card read/punch can act as both an input and output device. A paper tape reader can be a mechanical or optical input medium and a paper tape punch serves for output only. A magnetic tape drive can read data into a computer or collect output. Still other input devices include optical readers and magnetic tape drive can read data into a computer or collect output. Still other input devices include optical readers and magnetic character recognition readers, while a unique form of output device can be found in the graph plotter. Various types of printers are utilized for output devices. Certain I/O devices known as "low volume" include consoles and console typewriters, remote terminals (either teletype or cathode ray tubes for visual display) and audio devices.[12]

One element of the CPU is the central processing storage unit. Data storage prior to processing is called "queuing." Once data has been input, it may have to wait its turn until actual processing can occur. Although often limited in size, CPU storage provides the most rapid means of storage access available and addressable (can be called-up on demand by using its specific, identifiable address within the storage unit). In some cases CPU storage is "extended" by adding storage devices to

9. Subcourse DP 90-1, Subj: Introduction to Data Processing, Edition 4, February, 1974, US Army Institute of Administration, Ft. Benjamin Harrison, IN 46216, pg 1.
10. Student Outline 05905, Subj: Automatic Data Processing Systems, January, 1975, US Army Intelligence Center and School, Ft. Huachuca, AZ 85613, pg 3.
11. Ibid, pg 1.
12. Ibid, pgs 3-4.

provide working storage.

Both central and extended CPU storage are relatively expensive; thus, to facilitate greater storage capabilities, secondary storage is utilized. This type of storage, also known as bulk storage, is either addressable (which includes disks or disk packs) or non-addressable (which includes magnetic tape, punched papertape or punched cards). Addressable bulk storage provides medium-to-fast access time and large capacity at a medium cost. Non-addressable bulk storage on the other hand provides slow access to a virtually unlimited capacity of data at low cost. The important point to remember about secondary storage however is that all data and programs located here must be electronically moved to CPU storage prior to being processed.[13]

The processing function occurs in the CPU in the subelement known as the arithmetic and logic (A&L) unit. The name of this portion of the CPU aptly describes its performance of the arithmetic (addition, subtraction, multiplication & division) and logic (formal reasoning) functions directed by the programs input into the computer or residing somewhere in storage.

The CPU control unit functions as a director. Based upon the priorities assigned to specific jobs or the design and structure of the equipment's operating system itself, the control unit decides the order in which jobs are executed. The control unit is usually monitored by operating personnel through a console. These individuals can change or modify instructions to the control unit as required. Additionally, operating personnel are normally alerted by the console when errors occur so they can correct the error or direct the control unit to another job.

Processing functions performed by an ADPS can appear as in Figure 2. Other, more complex functions can be directly related to the sophistication of the system itself. An explanation of the different types of processing should complete the description of the creature I have thus far discussed.

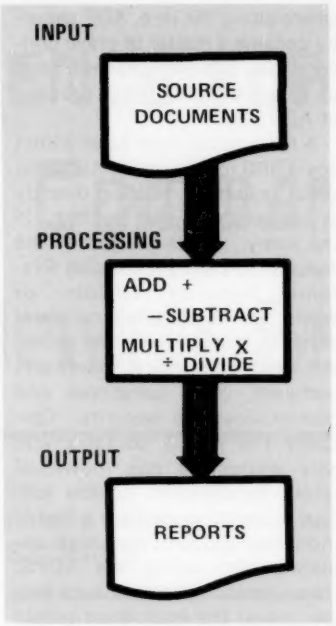


FIGURE 2. Simple Data Processing Steps.

Batch Processing requires that data be collected into groups and coded prior to processing. The items are then processed in batches at specific time intervals. In other words, the computer programs are executed serially. Although batch processing is best for many applications and is economical, it does require a sorting function, reduces timeliness and requires that files be organized sequentially.

On-Line processing is found in an ADPS utilizing its CPU to control the connected peripheral equipment. All such processing is accomplished through the use of a CPU.

Off-Line processing occurs within an ADPS that does not have connected peripheral equipment or is not controlled by the CPU. Equipment other than the computer accomplishes the processing. A card sorter is such a processor.

Real-Time Processing occurs in an ADPS which can process data and output information in a time frame which can influence the on-going process that is being monitored or controlled.

Simple processing is typical of second generation equipment because one CPU is involved and it processes one program at a time.

Multi-Processing occurs in an ADPS which has more than one CPU within the same computer. Each CPU can process a program and thus multiple processing occurs simultaneously.

Multi-Programming makes the most efficient use of hardware within an ADPS. In this situation the CPU can only process one instruction at any given time, however the instructions of two or more programs can be interwoven and received by the CPU simultaneously.

Finally, timesharing can be found in an ADPS which has a number of on-line, remote, simultaneously usable stations associated with it. A user who does not require a dedicated ADPS can benefit greatly from this type of processing because he obtains ADP capability along with other users at the same time on relatively quick basis. The multiple connections result in increased security requirements and actual reliability is decreased, thus some advantages of timesharing are offset by corresponding disadvantages.[14]

Where From Here?

The equipment in use today comes in a never-ending variety. Numerous manufacturers have entered the computer business over the past few years. When considering what hardware to acquire it is important to remember what the user wants from the equipment. The system best suited to one's needs may be unsuitable for budgetary reasons (when budget is a factor) or for reasons of compatibility (or lack thereof) with this equipment within the ADPS. And, of course,

13. Ibid, pgs 4-6.

14. Ibid, pgs 6-7

within the federal government the acquisition of ADP equipment is strictly monitored by the General Services Administration (GSA).

Despite the fact that hardware comes in many different forms, the total cost associated with an ADPS can easily be weighted toward software. The programs and operating instructions allowing hardware to function have become more and more expensive over the years. Many instructions can be incorporated by manufacturers right into the operating systems for this equipment. Refined applications within a given ADPS will still require specific and sometimes costly software development. Probably one of the best ways to cut costs in this area is through an ADP software exchange or sharing program to avoid duplication of effort and provide common software.

Finally an issue of growing importance is security. Somewhere along the line, ADP security became a matter of grave concern, but concern did not keep up with the rapid growth process of ADP itself.

A focal point must exist within any ADPS for the coordination of security matters relating directly or indirectly to that system. In the Army, this is the job of the Automatic Data Processing Systems Security Officer or ADPSSO. This individual must concern himself with the multiple areas of physical, hardware, software, data, personnel and communications security. Certainly the job is complex and very seldom is one individual totally qualified to do the job. The ADPSSO must have a highly motivated group of personnel assisting him within the ADPS: these personnel help insure proper use of the equipment within the system itself. In the end it probably can be concluded that ADP security is indeed possible, but only if the ADPSSO is successful in achieving a proper balance between the security procedures themselves and the proper utilization of the equipment available within the system itself.[15]

Conclusion

In this article I have outlined a novice's approach to the computer world — from its beginning to the present day. We are left with a challenge to take these basics and apply them to the requirements of the intelligence community. If the basics and potential problem areas are understood from the outset, the application process can and will occur in a smooth and logical order. The computer world is at our service — let's use it wisely.

15. Supplemental Reading, 51404-1/05904-1, Subj: Automatic Data Processing Systems, March, 1974, US Army Intelligence Center and School, Ft. Huachuca, AZ 85613, pg 6.

Acknowledgment

The author acknowledges Major Gerald Sands, a former ADP instructor at USAICS, who introduced him to the computer world while he was attending the MI Advanced Course in 1975. Additionally, he wishes to thank the Director and Staff of the Department of Defense Computer Institute (DODCI) in Washington, DC, for providing an extremely valuable orientation to various computer considerations during a series of courses he attended during the Fall of 1978.

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Subcourse DP 130-1, Subj: *Introduction to Automatic Data Processing,* Edition 5, dtd Jul. 75, US Army Institute of Administration, Ft. Benjamin Harrison, IN 46216

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CPT Pyrek is currently the ADPSSO for the US Army Management Systems Support Agency in the Pentagon. Prior to assignment to USAMSSA, he served in a series of Tac-Strat Intel assignments in Europe, Vietnam and CONUS. CPT Pyrek holds a Bachelor of Business Administration degree from Loyola University in Chicago, from where he also received his commission through the ROTC program. He is a 1975 graduate of the MI Advance Course and has recently been tentatively selected for RA integration. CPT Pyrek hopes to pursue graduate work in the area of Computer Science/Systems Management in relationship to his current tracking in his alternate specialty of Automatic Data Processing.

INTELLIGENCE FOR COMMANDERS--- AN UPDATE REPORT

by Leonard W. Harsel

Or, How Automation Finally Arrives on the Battlefield

Counting beans and bullets with computers has been accepted in the Army for quite a while: even the traditional Morning Report has been replaced by a coding sheet. Yet combat intelligence processes continue to operate with tools used in the days of the Allied Expeditionary Forces.

This article will briefly outline a current project to provide computer support to the combat intelligence functions within US Army Europe (USAREUR) and its subordinate corps and divisions.

An updated study during late 1976 showed that the Army's increased emphasis on all-source intelligence production at corps and division levels has resulted in USAREUR's and DA's decision to implement a single all-source combat intelligence system with security provisions for entry of collateral information. It is known as the USAREUR Intelligence Information Subsystem (IISS), part of the USAREUR Command and Control Information System (CCIS).

The primary consideration is to provide ADP capabilities to the intelligence analyst as quickly as possible. To accomplish this, USAREUR decided to use equipment currently available in the civilian marketplace to perform functions that can be accomplished with the least complexity for the user. To give USAREUR a "do-able-do" was the operative phrase; to provide a limited capability to support the tactical intelligence requirements of the commander as quickly as possible. This concept is based on lessons learned during the Vietnam War when commercial grade computers were used effectively to collate and store intelligence information.

The USAREUR IISS will become an integral part of existing and developing intelligence organizations. The same reports and reporting channels that are in use today will be utilized and the same people will use the system within their specialty areas, i.e., order of battle, R&S, collection management, etc.

Although there are other ongoing studies proposing tactical ADP support, these generally involve some restructuring of the entire intelligence system, including the design of various types of automated files and file structure, and organizational changes that might be necessary because of the introduction of ADP into the command post. Rather than wait for such new designs, USAREUR will field a system using state-of-the-art hardware and making maximum use of programs and supporting software that have been or are being developed for other intelligence systems. The development concept includes the flexibility to incorporate new or improved capabilities as they become needed or available.

The USAREUR IISS is to be an independent but integral subsystem of the USAREUR Command and Control Information System. It will function as a part of the USAREUR IDHS, operated and maintained by the ODCSI, USAREUR. The entire project, however, is sponsored by OACSI, DA. The system will be implemented in two phases:

- Phase I — This phase is designed to provide for the current processing needs of ODCSI, USAREUR and to provide limited support to the corps and CENTAG. This is to be accomplished by deploying mobile ADP complexes to Echelons Above Corps (EAC).
- Phase II — As the ADP support requirements become more completely defined and, hopefully, solidified, additional equipment and processing capabilities will be added to the Phase I configuration. This expansion includes placing computers at the divisions and corps, and increasing support to selected NATO head-

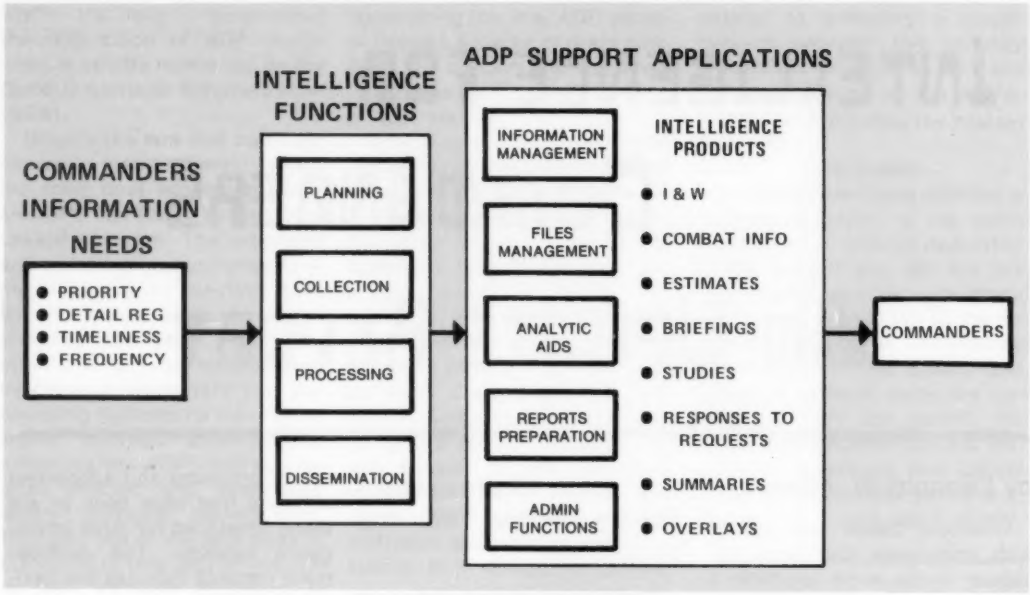


FIGURE 1. ADP Support to the Intelligence Cycle.

quarters.

The USAREUR IISS will operate in a secure network from the division to national data bases. Its basic purpose is to provide limited automated capability to accomplish selected intelligence functions. Among the capabilities to be implemented are:

- Assimilation, storage, comparison and update of enemy information.
- Compilation and dissemination of summary reports.
- Analyst-to-analyst communications.
- Integration of management and control of intelligence collection assets at all levels.
- Interface with other command, theater-level and national systems.

The capability to accomplish these functions either exists to some degree now or is being developed. The system deployed as Phase I will, of course, be limited; more extensive follow-on capabilities will be based on reactions from the intelligence sections using Phase I and a determination of any additional requirements.

The automated intelligence system will offer support down to and including US divisions and a rapid means of providing US — derived intelligence information to the NATO commands controlling US forces. The system will support wartime planning while accomplishing peacetime tasks.

The primary function of the USAREUR IISS is to maintain a data and message communications network to facilitate the gathering, maintenance and dissemination of all pertinent ground intelligence information in the European central region. It should enhance the ability of the commander to assess intelligence factors in combat and, more importantly, could aid in the prevention of hostilities. The IISS will also provide greater speed and accuracy of analysis, processing and dissemination of messages and data to all concerned organizations.

The IISS will provide for the entry of messages and other data by means of a User/Analyst terminal, direct message input, and data transfer from one computer to another.

The analysts of the IISS are provided "smart" terminals equipped with dual cathode ray tube displays and a limited local storage and programming capability. This allows the analyst to store incoming messages, create and maintain personal "shoebox" files and prepare reports right at his station/desk without taking time from the main computer facility.

The IISS also provides for direct entry of messages and data from external communications media or from digital transmissions of other systems.

The USAREUR IISS is being built around several interconnected but independent computer complexes. USAREUR and the corps will each have a truck-mounted mobile computer, called a Mobile Intelligence Center (MIC). The configuration consists of an AN/GYQ-21(V) minicomputer and associated equipment housed in three modified S-280 shelters mounted on tactical cargo trucks (see Figure 2 and 3). The trucks are set up side by side and mated together to form an operational complex.

The MIC is connected to and supports a remote computer (another AN/GYQ-21(V)) that is

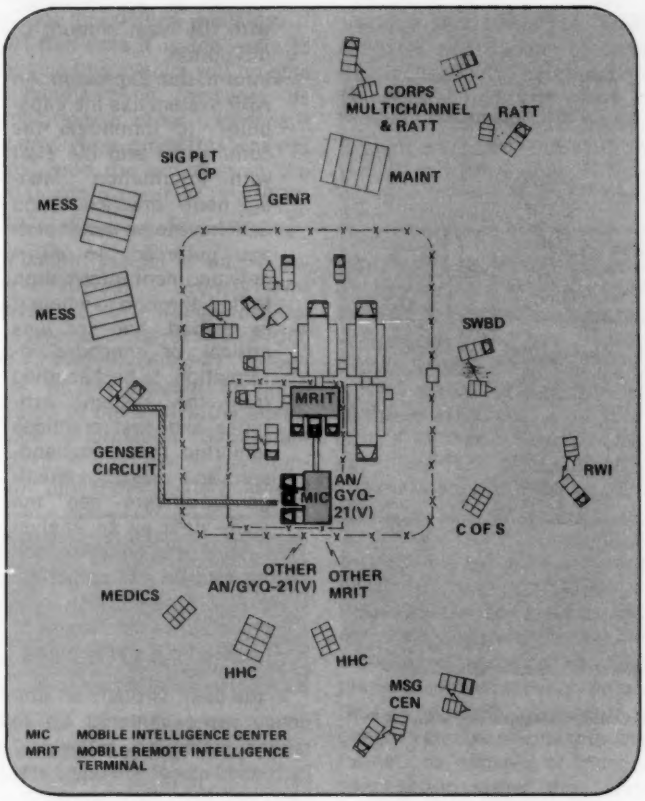


FIGURE 2. Type IISS Supported Main Command Post Configuration.*

* (Adapted from TC 101-5, April 1976)

also shelter mounted and called the Mobile Remote Intelligence Terminal (MRIT).

The AN/GYQ-21(V) is the standard configuration of Digital Equipment Corporation's commercial PDP-11/70 computer with a variable assortment of peripheral equipment such as tape drives, disk packs and printers.

The MRIT will be found at all echelons within this system.

Each facility, in addition to the User Terminals, will have a plotter for overlay preparation, a printer for necessary written reports, and, at the MIC, a capability to produce paper tape for transmission over regular teletype circuits. Each facility will have other ADP equipment for processing and storage of data.

The proposed intelligence system can accommodate both the current concepts of the Battlefield Information Control Center (BICC) and the developing doctrine for an Electronic Warfare and Intelligence Operations Center (EWIOC). The Combat Electronic Warfare and Intelligence (CEWI) organizations will provide all-source intelligence and EW support through the EWIOC located within the supported unit's Tactical Operations Center (TOC). In essence the IISS at corps will provide the automated support to the EWIOC.

An example of the type of information and files that the Intelligence Subsystem will support include:

- Order of battle
- Imagery interpretation files
- Lines of communication
- Collection management files
- Enemy air defense
- Enemy activities files
- Indications and warning files

Again, many of these are available on other systems and are being adapted for tactical use to meet the USAREUR requirements.

In the Phase I system, users will be able to selectively view file data from their terminal work stations, and change, or add to amend such data. As the IISS evolves into Phase II and beyond, analyst/users will be able to view files and data of geographically separated computers. This capability may reduce or eliminate the need for written copies of various reports. A corps analyst, for example, will be able to display the files and data bases of the subordinate divisions for the most recent summary of enemy activity. Under this concept, the traditional written reports as the intelligence summary or estimate may not be required. There will be a capability however, to machine compile and prepare reports for agencies and organizations not in the IISS network.

In the design of the IISS, every effort is being made to use standard report formats, especially those required by JINTACCS and NATO. The user/analyst will prepare reports with which he is familiar and which, to the extent possible, use English terms and words.

This USAREUR Intelligence Information Subsystem is not designed to be all things for all people. It will process message traffic, provide some computations and correlation of data, and provide a solid start in applying modern technology to the intelligence officer.

Automation will not immediately, and may never, alleviate all problems in the management of intelligence. The following provides a brief summary of the IISS's impact on four important areas.

- **Resources.** Initially, at least, more manpower may be required since

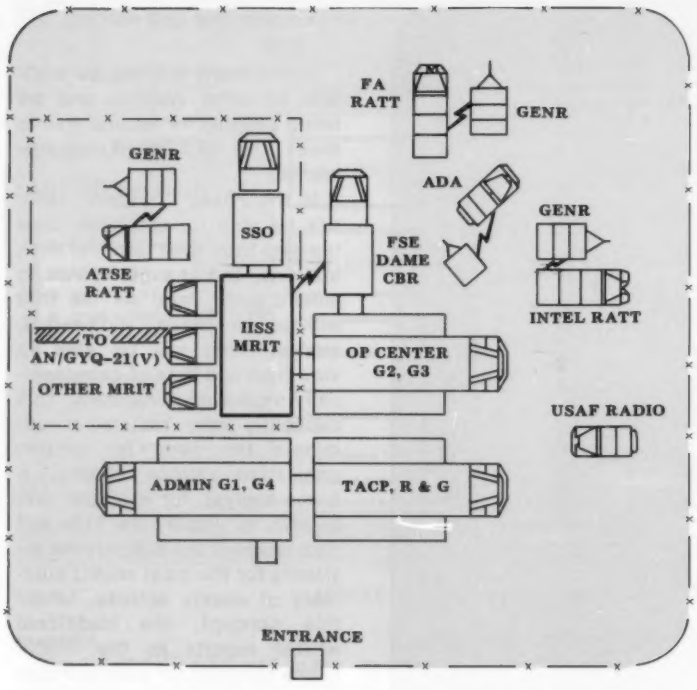


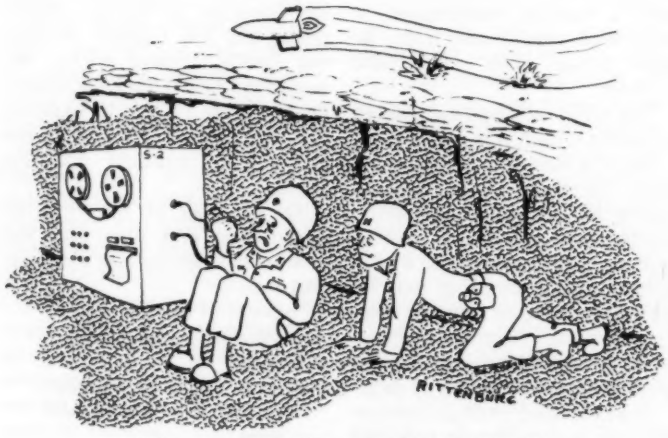
FIGURE 3. Type IISS Tactical Operations Center Configuration, Main CP.*
*(Adapted from TC 101-5, April 1976)

the mission must still be accomplished manually to some degree, even when the system is integrated into the intelligence sections.

- **Information Accuracy.** Information in the system will only be as good and as complete as the people entering it into the system. Initial entry of data, at any level, may be the greatest bottleneck encountered. Direct data capture can be done to a degree; however, other information will come from radio or TTY messages and someone (an input analyst) will have to format them for the computer.
- **Information Requirements.** Information requirements, as well as the entire flow of information through the system, must constantly be reevaluated. Many ADP systems become trapped in a rigid, unchangeable structure and fall of their own weight. An ADP supported intelligence system demands a high degree of flexibility to meet changes in command and staff requirements; these should be accomplished with the least amount of disruption.
- **Information Explosion.** An ADP system has the capability to innundate the commander and the staff with information. Management practices and SOP have to be developed, and enforced, to allow only pertinent information to flow through to where it is needed, and for less critical, or unneeded information, to be discarded from the system. Attitudes and past practices requiring that commanders and senior intelligence officers "see" the same data as an analyst — information on which the analyst has based his product — can be disasterous in terms of wasted time and energies.

In the past, virtually all intelligence tasks centered on their related paperwork aspects. The increased use of the computer to keep and help maintain such records should force the analysts to concentrate on evaluation and analysis of the information. This presents another problem; we may have to train analysts to analyze rather than keep records.

We must also train analysts to recognize and filter significant



"Never seen an S2 so cool under fire."

information from the vast amount that will be available.

At this time it is too early to say how this system will be able to handle such concepts as templating or other mathematical modelling, since this was not considered for inclusion in the initial deployment of the IISS. The implementation concept of using systems that are already available and working precludes the inclusion of developmental activities at this time.

This article has discussed a system being fielded in 1979 for providing ADP support to tactical-level intelligence. Providing automated support to the intelligence area is a significant step. Intelligence is for commanders and the system described in this article should go a long way in helping "reduce to a minimum the uncertainties of the enemy, weather and terrain."

Leonard Harsel is an MI reserve officer currently employed as an Intelligence Requirements Analyst for INCO, Inc., a Virginia-based ADP developer. In this capacity he participated in the USAREUR Intelligence Information Subsystem project. A graduate of the Command and General Staff College and former USAINTS instructor, his current reserve assignments are with the Defense Intelligence Agency and the 5th PSYOPS Group, Washington, DC. While serving on active duty, he was assigned to ODCSI, USAREUR, as an area desk chief and participated in several early projects to automate ground order of battle and other combat intelligence functions. He was also an Operations Officer of the Tactical Systems Development Group, Fort Hood, which provided prototype experimentation in ADP applications to the operations and intelligence functional areas of the tactical command post.

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professional reader

The Horse Soldier, 1776-1943. The United States Cavalryman: His Uniforms, Arms, Accoutrements, and Equipments. Vol II (1851-1880) By Randy Steffen. University of Oklahoma Press, 1978. Black and white and color illustrations. 215 pp. $25.00

In his second of four volumes on the US Cavalryman, the late Randy Steffen continues a fascinating documentary of weapons, uniforms, and equipment which found themselves in the inventory of the American horse soldier during the years which have traditionally made him famous to both school boy and scholar. This volume enjoys a special position among the other three, for herein are presented the weaponry and dress of the dragoon who crossed sabres with the horse soldiers of J.E.B. Stuart and Nathan Bedford Forrest, and the cavalryman who met Sitting Bull at the Little Big Horn.

The Civil War was a seminal period for the US Cavalry. Its Confederate counterpart was quick to recognize the value of mounted troops and far better prepared to effectively employ them. The South grouped its regiments and battalions into large formations capable of independent action rather than waste them in piecemeal company-sized attacks against inconsequential objectives. But Yankee horse commanders gradually learned to appreciate and better utilize their cavalry. For the Confederates, the coming of age of Union cavalry occurred as the effectiveness of their own cavalry began to decline. Hampered by a diminishing supply of both men and horses, the South's mounted arm was at last overtaken by the North's as the better force in the field.

Over half of this volume is devoted to the Indian Wars. Recognizing calvalry's mobility and its inherent capability to operate on extended frontages, the Army had, by 1868, the greater part of its cavalry assigned in the West. Ninety-two companies were scattered among 59 posts from the Canadian border to the Rio Grande, from Kansas to California. This post-Civil War period was the most colorful of almost all cavalry units' histories and has inspired painters, novelists, and film makers. Mr. Steffen was also similarly moved but his passion has been for accuracy and detail in uniform, weaponry, and horse equipments rather than for romanticism or legend. But the reader cannot help but notice the sense of history the author possesses or how that sensibility is infused throughout this second volume.

Here, as in Volume I, there are a number of interesting historical side trips. Three of the more memorable ones discuss the obscure topic of a Camel Corps (a unit of dragoons mounted on dromedarians), a lancer unit (the Sixth Pennsylvania Cavalry) which was the first and only American cavalry regiment to be equipped with a European designed lance, and uses of the sabre, pro and con, in Indian warfare.

Randy Steffen will be long remembered as one of our foremost cavalry historians. *The Horse Soldier* is to be published in four separate texts. If the last two books are even a shadow of his renderings in Volumes I and II, his reputation will remain secure.

Mr. Chris Timmers

SOVIET-WARSAW PACT ALTERNATIVES

To Radio Communications on the Electronic Battlefield

by CPT
Richard F. Riccardelli

On today's battlefield, commanders will be forced to use alternate means of communication because of the limited number of radio frequencies in the electromagnetic spectrum, the growing emphasis on jamming emitters on the battlefield, the unintentional jamming of radio frequencies due to a high density of signalling devices, and the degree that electromagnetic pulse (EMP)[1] and blackout in a nuclear environment affect sophisticated electronic equipment.

Soviet leaders recognized this situation some time ago. I. T. Peresypkin, Marshal of Signal Troops during World War II, has noted that ". . .uninterrupted communications is achieved by the integrated use of all means of communications (radio, wire and mobile)."[2]

Soviet concern that radio direction finding and intercept will reveal the deployment and intentions of maneuver elements,[3] and their desire to disguise intentions through deceptive modes, indicate the importance that alternate forms of signalling will have in ground force operations. Indeed, as stated by one Soviet official, "the more dynamic . . . the situation and the wider is the sweep of battle, the higher the requirement to control the forces and systems providing it."[4]

Wire Communication

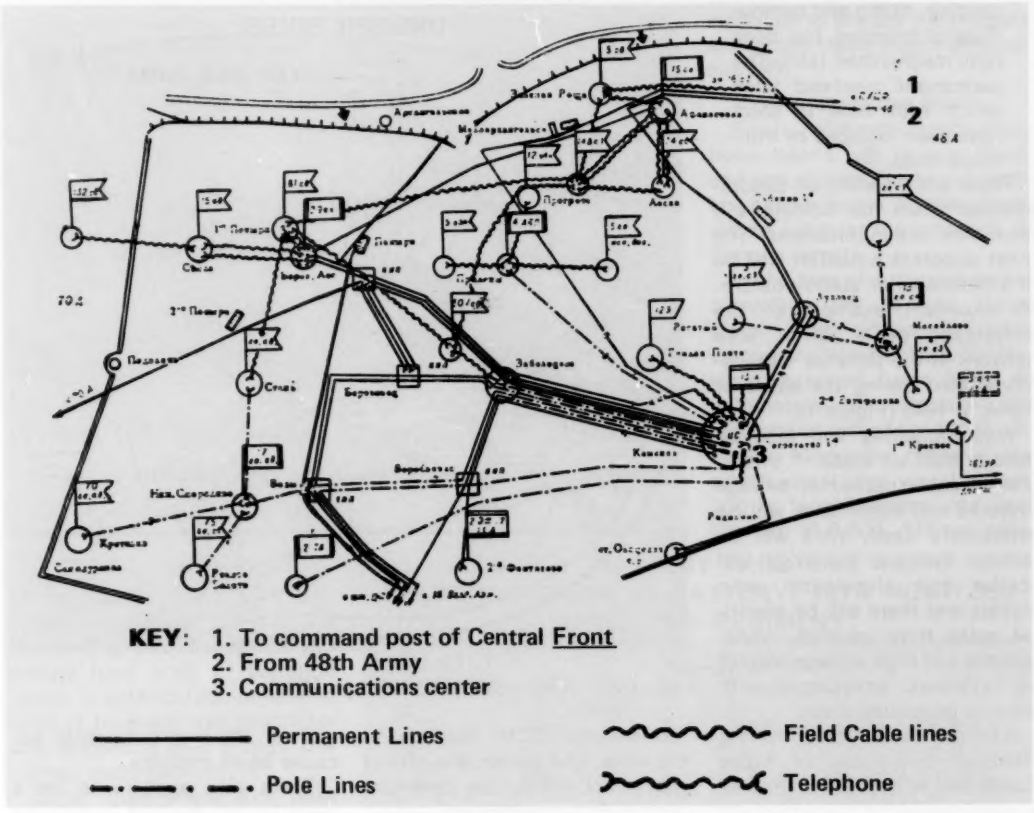
World War II witnessed the first massive employment of wireless communication in land warfare. For the Soviets, the number of wireless radios increased from 20 radios/KM at the time of the battle of Stalingrad to 326 radios/KM in 1944, as typified by Byelorussian Front operations.[5] Yet, wire signalling remained very important to ground force commanders; many combined arms and tank army commanders preferred wire communications over radio signalling.[6] Also, as noted by the Marshal of Soviet military communications, there was concern over the capabilities of the Wehrmacht's Funkabwehr (Signals Intelligence Service).[7] This concern was not unwarranted; German General Von Mellenthin noted that "during the battle of the Dnieper in 1943, the chief of staff of the 48th Panzer Corps had declared, 'the best and most reliable source of intelligence was our Wireless Intercept Service.'"[8]

Thus, by the final stage of the War, the 1st Byelorussian Front alone used a phenomenal 77,637 KM of field cable (enough to circle the equator twice) and more than 61,000 field telephones.

It is also noteworthy that major Soviet commands "had mobile reserves at their disposal including specifically detailed

1. Department of the Army, *Staff Officer's Field Manual, Nuclear Weapons Employment Doctrine and Procedures* (Washington, DC: US Government Printing Office, 1977), pp. B-12, B-13; Edwin James Gaul, "Electromagnetic Pulse," *Military Review*, March, 1975, pp. 12-18.
2. I.T. Peresypkin, *Communications in the Great Patriotic War* trans. JPRS No. 64919, June 4, 1975 (Moscow: Svyaz' V Velikoy Otechestrennoy Voyne, 1973), p. 27.
3. V. Grankin, "Remember: The Enemy is Listening," *Soviet Military Herald*, No. 6, 1974, pp. 182, 184.
4. Ye. Turov, "Service Communications," *Soviet Military Herald*, No. 3, 1976, p. 193.
5. V. Stishkovskiy, "Communication Equipment in the War Years," *Soviet Technology and Armament*, No. 8, 1975, p. 32.
6. N. N. Popel', V. S. Savel'yev, P. V. Shemanskiy, *Troop Control During the Great Patriotic War* trans. JPRS No. 64920, June 4, 1975 (Moscow: Upravleniye Voyskami V Gody Velikoy Oteschestvennoy Voyny, 1974), p. 39.
7. Peresypkin, op. cit., pp. 259-260.
8. F. W. Von Mellenthin, *Panzer Battles: A Study of the Employment of Armor in the Second World War* trans. by H. Betzler (Norman, Oklahoma: University of Oklahoma Press, 1956), p. 246.

FIGURE 1. WIRE COMMUNICATIONS OF THE 13TH ARMY IN JUNE 1943 (KURSK BULGE)



KEY: 1. To command post of Central Front
2. From 48th Army
3. Communications center

(Source: Peresypkin, op. cit., p. 137.)

teams of telephone and telegraph operators. These mobile reserves were used to quickly lay a communication line, set up a radio, telegraph or telephone station and to get into contact with the relevant communicating agency."[9]

The Soviets tend to duplicate or "harden" their communication links.[10] These links will be set up both horizontally and along an axis or main communications artery (os' svyazi) as command posts displace.[11]

The primary concern of ground commanders will be redundant signal channels achieved by integrating all forms of signals. Wire and cable communications will be the primary link whenever and wherever time permits, or when serious degradation of radio nets appears a certainty.[12] In this light, Soviet Colonel D. Petukhov summed up the role of wire signalling:

> Despite its seeming 'inefficiency' and 'inflexibility' wire communication still plays an important role in troop control. It is more convenient, more stable and less liable to interception by the enemy, regardless of the type of information transmitted through it. Multicore cables with minimum electrical interference have been developed and

9. D. Petukhov, "For Reliable and Uninterrupted Communication," *Soviet Military Herald,* August, 1974, p. 29; this is still true today. S. Skvortsov and K. Borunov, "For Complete Use of Communications," *Soviet Antiaircraft Defense Herald,* No. 9, 1973, p. 72.
10. V. G. Reznichenko, *Tactics* [*The Officer's Library*] trans. by FTD, US Air Force (Moscow: Voyennoye Izdatel'stvo', 1966), pp. 69-70; "Soviet Communications 'More Hardened': Currie," *Armed Forces Journal International,* July, 1974, p.20; Skvortsov and Borunov, op. cit., p. 70.
11. Ibid.; *Dictionary of Basic Military Terms: A Soviet View* trans. by the Translation Bureau, Secretary of the Canadian State Department (Washington, DC: US Government Printing Office, n.d.), p. 148; Stishkovskiy, op. cit., p. 32; Popel' et al, op. cit., p. 40.
12. M. Tyukilin, "So that Communications are Reliable," *Soviet Antiaircraft Defense Herald,* January, 1977, p. 71.

introduced for regular use . . . The laying of cable lines, including unwinding, digging, filling and camouflage of trenches, has been fully mechanized (sic). The permanent overhead lines which took time to erect have been replaced by multicore lines.[13]

There are a variety of circumstances when the Soviets will favor wire communications. The most apparent situation will be in a defensive or static posture. An excellent example of the complexity of a Soviet wire network in the defense was demonstrated during the battle of Kursk in 1943 (Figure 1).

Wire signalling will also be used in built-up areas.[14] Underground cable networks, sewage systems and basements will be extensively used. Wire will be favored because buildings will scatter and channelize radio signals and there will be electrical noise from vehicles, transformers and high voltage electrical systems associated with densely populated areas.

A third area is in slow-moving offensive operations or those maneuvers where environmental electromagnetic interference (EMI), frequency spectrum clutter and enemy electronic countermeasures (ECM) degrade radio links. The terrain and rate of movement will be the determinants in wire employment.

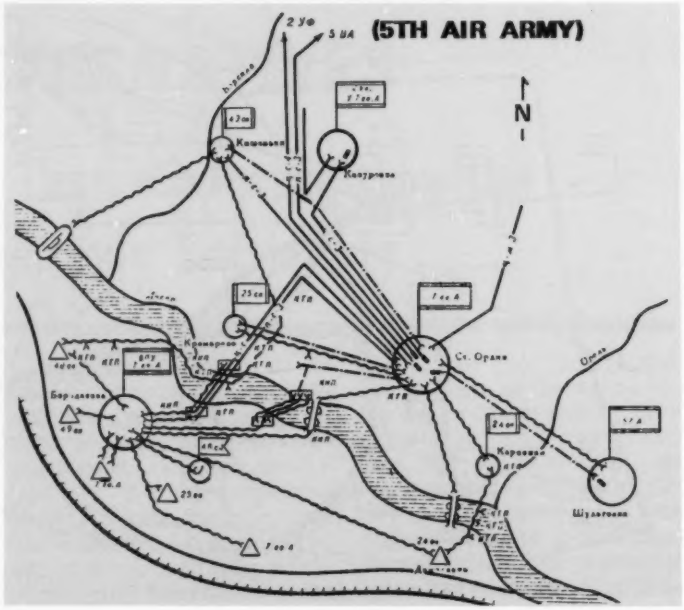
Water and river crossing operations will favor wire employment, especially when Soviet unit deployment and intentions are unknown to the enemy (figure 2).[15] For example, in crossing the Oder, Bober and Neisse Rivers during the Sandomierz-Silesian operations of January and February 1945, the 6th Guards Corps set up 31 communication centers and used about 1500 KM of wire.[16] Within staging areas and across water obstacles, this means will leave no electronic signature and will aid in the overall masking of the maneuver. However, once the operation is detected, communications will switch to radio because of its mobility.

There also appears to be a place for this medium in airborne and air assault operations. One Soviet author has described an airborne operation where wire had been used in marshalling areas, on drop sites, at consolidation points where Soviet paratroopers had to hold key terrain and at exfiltration locations.[17]

In intra-command structures at all echelons, wire signalling will be the principle communication medium. In addition, cable will also connect command posts with air defense, artillery (Figures 3 and 4) and observation posts.

The logistics/administrative

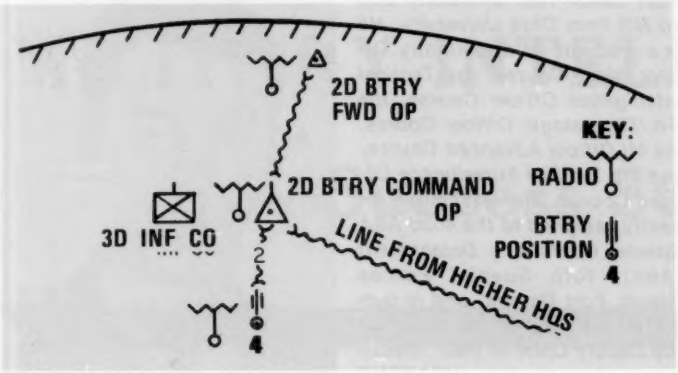
FIGURE 2. WIRE COMMUNICATIONS OF THE 7TH (5TH AIR ARMY) 23 SEPTEMBER 1943 IN CROSSING THE DNEIPER RIVER



(Source: Peresypkin, op. cit., p. 157.)

13. D. Petukhov, "Types and Means of Communication," *Soviet Military Review,* November, 1973, p. 8; Soviet ditching machines like the PLT-60, towed by an S-80 class tractor, would work well in wire and cable laying operations.
14. US Army Intelligence Center and School, *Handbook on the Soviet Ground Forces (Revised)* USAICS Supr 69720 (Fort Huachuca, Arizona: US Army Intelligence Center and School, 1977), p. 4-10; John C. Sharfen, Michael J. Deane, et al., *Soviet tactical Doctrine for Urban Warfare* (Menlo Park, California: Stanford Research Institute, 1975), p. 142; as cited in A. K. Shovkolovich, F. I. Konasov and S. I. Tkach, *Combat Activity of a Motorized-Rifle Battalion in a City* (Moscow: Voyenizdat, 1971), p. 55.
15. D. Moskalenko, "Communications during an Amphibious Assault Landing," *Soviet Military Herald,* No. 5, 1974, pp. 220-222.
16. Popel' et al, op. cit., p. 39.
17. S. Vasilyev, "Communications in a Tactical Airborne Force," *Soviet Military Review,* April, 1976, pp. 26-28; S. Goryachkin, "Communications During a Tactical Airborne Assault Landing," *Soviet Military Herald,* No. 12, 1974, pp. 204-205, 207-208.

FIGURE 3. BATTERY WIRE AND RADIO COMMUNICATIONS 2D BATTERY, 18TH REGIMENT ARTILLERY REGIMENT



(Source: U.S. Army Artillery School, Soviet Field Artillery ST 6-154 (Fort Sill, Oklahoma: U.S. Army Artillery School, 1953 , p. 24.)

(rear) communications net containing supply, transport, medical and a variety of services will be linked by wire. These nets will extend from front to battalion levels. (Logistics/administrative units at front will use teleprinter and telephone with a high frequency radio backup).[18]

Other sites where wire links will be extensively used include fixed installations such as airfields, military posts, fixed anti-aircraft gun and missile sites and along railroad and troop movement routes.[19]

Finally, radio-wire integration may play an important rcle in the signalling picture for all Soviet units. By remote operation of transmitters, a false picture of the location of units would be presented to enemy signal intelligence units.

Messenger and Courier Communications

Described by the Soviets as "mobile" communications, messengers or "runners" will use available transport such as passenger vehicles, armored personnel carriers, motorcycles and liaison aircraft to transmit sensitive operational documents. Even dogs and homing pigeons may be used under certain circumstances to transmit data.

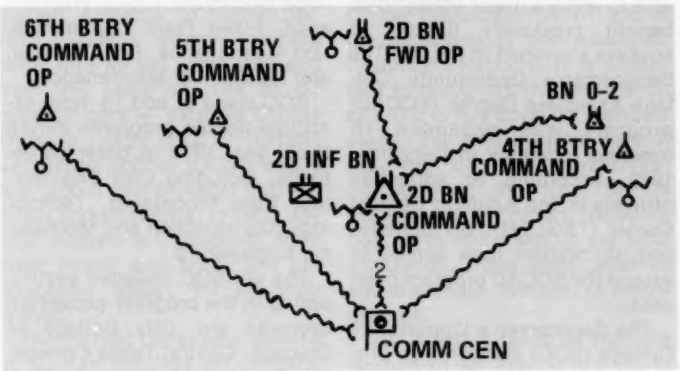
Located in the immediate vicinity of a headquarters staff, courier personnel are selected for their trustworthiness and loyalty. Travelling on preselected routes, they will avoid avenues vulnerable to attack. However, when dangerous routes are impossible to avoid, troops will be stationed to protect the couriers at the most likely enemy ambush sites.[20]

Other Signalling Means

Finally, alternate communications means will include hand-and-arm signals, flares and rockets, smoke, audio signals, flags, strobe lights or the initiation of fires on targets.

In the area of flare and rocket signalling, the 26.5mm signal pistol was extensively used among the Warsaw Pact armies. Hand launched flares 30 to 40 millimeters in diameter and reaching an altitude of 160 to 180 meters have now replaced the signal pistol. For visual signalling at longer ranges, the East German FLG-500, 116mm parachute illumination rocket, can reach a range of 5,000 meters. And, mortars can be equipped with special parachute flare shells.[21]

FIGURE 4. BATTERY WIRE AND RADIO COMMUNICATIONS 2D BATTERY, 18TH HOWITZER ARTILLERY REGIMENT



(Source: Soviet Field Artillery, p. 25.)

18. US Army Intelligence Threat Analysis Detachment, *Military Operations of the Soviet Army* USAITAD Report No. 14-U-76, May, 1976, p. 63.
19. Reznichenko, op. cit., pp. 118, 123.
20. Anon. *Handburch fur Narchrichtensoldaten* (East Germany: n.p. n.p., n.d.).
21. HQ's, USAREUR and Seventh Army, "Identification Guide, Part One; Weapons and Equipment, East European Communist Armies, Vol. 1, General Ammunition and Infantry Weapons," USAREUR Pam 30-60-1,

Available line of sight will determine the troop level at which audio and visual signalling will be used. Initiation of some form of these signals will identify targets, boundaries and adjacent units .[22]

Soviet command and control communications, hardened by multiple routes and media, are planned to withstand persistant disruption and to avoid one of the most serious concerns of Soviet field commanders: the loss of command and control communications.

1972, p. 159.

22. Defense Intelligence Agency, *Soviet Tank Company Tactics*, Report No. DDI-1120-129-76, May, 1976, p. 5.

CPT Riccardelli received his BA from Seton Hall University and an MS from Ohio University. He is a graduate of the Infantry Officer Basic Course, the Tactical Intelligence Officer Course, the EW/Cryptologic Officer Course, the MI Officer Advanced Course, and the Tactical Surveillance Officer Course. He was most recently assigned to the 402d ASA Special Operations Detachment (Abn), 10th Special Forces Group, Fort Devens, and is currently assigned to the Office of the Deputy Chief of Staff, Intelligence Headquarters, USAREUR and 7th Army.

TROOPS OVERSEAS TO GET SERVICEMEN'S OPPORTUNITY COLLEGE ASSOCIATE DEGREE (SOCAD)

Soldiers overseas will now be able to enjoy a major educational benefit previously limited to soldiers stationed in the US. The Servicemen's Opportunity College Associate Degree (SOCAD) program was expanded to overseas locations in December 1978, according to education officials in The Adjutant General Center (TAGCEN). Six colleges and universities have agreed to extend the SOCAD program overseas.

The Servicemen's Opportunity College (SOC) standardizes procedures for academic evaluation of military schooling, experience and training for over 70 participating educational institutions. The program provides flexible credit transfer options leading to an associate degree.

The program was originally designed for Combat Arms personnel but is being expanded to meet the needs of other service personnel. In addition to the associate degree program in management for combat arms servicemembers, SOC has developed associate degree programs for soldiers in Air Defense Missile Maintenance, Field and Area Communications Maintenance, Fixed Plant Communication Maintenance, Food Service, and Mechanical Maintenance.

SOC plans to add 15 more associate degree programs during fiscal year 1979 in other career fields, including Civil Engineering, Data Processing, Technology, Construction and Mechanical Engineering.

The six SOC colleges participating in the program expansion overseas are: City College of Chicago, Central Texas College, Big Bend Community College, Los Angeles City Colleges, Florida State College, and the University of Maryland.

The advantages to soldiers, say TAGCEN officials, are that special arrangements are made to enroll qualified service members; there is a more liberal policy for transferring academic credits from other institutions, and residence requirements can be adjusted. SOC schools sign an agreement with the student for a degree, provide counseling services and award degrees to eligible students who have completed 60-65 semester hours, depending on the program. Participating schools have agreed to accept the recommendations of the American Council on Education for granting credit for nontraditional learning, such as military training and credit-by-examination.

The SOC organization oversees compliance with membership requirements. Commanders and education services counselors at Army installations monitor the program to ensure that schools conduct the program in accordance with written agreements.

Commanders are encouraged to advertise the potential of the SOCAD, especially to senior noncommissioned officers. SOCAD can assist enlisted personnel in meeting educational goals relating to professional development.

Soldiers interested in the SOCAD program can obtain further information from their local installation education services office.

WOMEN IN MILITARY INTELLIGENCE

A Success Story

By Captain (P)
Stephen C. Conrad

Military Intelligence is the fifth largest branch of service in the US Army, with 4,671 officers (as of June 1978) in the grades of second lieutenant through colonel. Of this number, 415, or slightly less than nine percent, are female. However, the real impact is seen when one examines year group strength figures for a ten-year period, 1968 through 1977:

MI (Primary Specialty)
BY YEAR GROUP

YG	FEMALE	TOTAL YG	PERCENT FEMALE
68	4	195	2.0
69	5	275	1.8
70	6	287	2.1
71	9	211	4.3
72	16	251	6.4
73	25	240	10.0
74	40	253	16.0
75	48	269	18.0
76	100	338	30.0
77	116	335	35.0
TOTAL	369	2654	13.9

The number of women coming into the service has steadily increased since the elimination of the draft and the advent of the volunteer Army. That women represent about nine percent of the total MI branch strength is a reflection of the low percentage of females in the early year groups. In the foreseeable future we can expect that about 30 percent of the new MI accessions will be female. If this trend continues as anticipated, the total percentage of females in MI branch will gradually increase to approximately one-third.

In 1974, all women officers on active duty were detailed to career branches. This action put a significant number of women into MI branch. The last class of Women's Army Corps accessions graduated from Fort McClellan, Alabama, in September, 1978. Today, women officers come into MI the same way and from the same sources as do male officers — Reserve Officer Training Corps (ROTC); Officer Candidate School (OCS); and a few (about one percent) through direct appointments. In 1980, the first women will graduate from West Point, and some will undoubtedly select MI as their branch.

The marked increase in women in MI has required all officers, young and old, to learn how to manage and be managed by women. This adjustment has been easy for some and more difficult for others. It must be made, however, as the numbers of women and the roles in which they serve increase within the branch.

How well are women performing in MI? From the information available within MI Branch, MILPERCEN, I have attempted to answer this question. I personally reviewed the military personnel files of 396 female captains and lieutenants and gave each a performance rating. The criterion by which I rated each file is the same criterion used within MI Branch for male officers. The evaluation is subjective and is based upon the experience of the assignment officer and his/her knowledge of how officers are currently being rated. Specifically, I looked at parts IV, V, VI, and VII of the DA Form 67-7, Officer Evaluation Report, and at the narratives of the Academic Evaluation Reports. It is important to recognize that evaluation of a file is not done on numbers alone, but also involves careful reading of the narratives. Furthermore, the total file is evaluated; one report, good or bad, does not make up the total evaluation. Files were rated as above average, average, or below average.

My analysis revealed that the women of MI branch are doing very well indeed. There are 2,967 officers in MI branch in the grades of second lieutenant through captain, and 396 (13 percent) of these are women. Of the 396 female files reviewed, 125 were so new to the Army that they had not been evaluated. The remaining 271 files provided the basis for my conclusion on the performance of women in MI branch.

Sixty-nine of these files, or 25 percent, were found to be above average. Women in this category would be competitive for such considerations as advanced civil schooling and nominative as-

signments. Proportionally, this compares well with the male officers in the same grade structure.

A majority — 184, or 68 percent — of the files were rated average. It is critical to understand that average is not a "bad word." These officers have good files, are not promotion risks, and certainly have the potential for a full and highly successful military career.

A few did not fare so well. Only 18 of the 271 files, or seven percent, were considered below average for company grade MI officers. Like a similar percentage of their male counterparts, these women have experienced significant difficulty in their careers and are considered to be promotion risks to the grade of major.

Overall, the total evaluation revealed that women compare equally with the males in the distribution of those above average, average, and below average.

The women in MI branch have a higher level of civilian schooling than the males. Over 76 percent of all MI officers have at least a baccaulerate degree, and many are working on or have completed a masters degree. About one percent of the officers in MI branch have completed the prerequisites for a PhD. Over 12 percent of the women in the grades of second lieutenant through captain have a masters degree. This compares to 7.1 percent for all MI officers in these grades. Only two of the 396 female files reviewed reflected less than a baccaulerate degree.

Women receive the same basic intelligence training as their male counterparts. Furthermore, it is just as essential for them to do well in this training in order to be properly prepared to perform their duties as tactical/strategic intelligence, counterintelligence, or cryptologic officers. The academic reports in the files reviewed revealed that women are doing well academically at our intelligence schools at Fort Huachuca and Fort Devens.

It should be noted that an academic report which states that an officer was the number one graduate or points out strong leadership traits can be approximately as beneficial as a regular OER. Conversely, an academic report which has negative comments about performance or reflects that the officer was unable to complete the course of instruction can be just as detrimental as a bad officer evaluation report.

Currently, our lieutenants and captains, male and female, are distributed as follows:

	% TOTAL CAPTAIN DISTRIBUTION	% FEMALE CAPTAIN DISTRIBUTION	% TOTAL LT DISTRIBUTION	% FEMALE LT DISTRIBUTION
FORSCOM	26	(14)	42	(34)
TRADOC	11	(17)	11	(15)
INSCOM	19	(22)	11	(16)
USAREUR	10	(22)	16	(12)
THS (STUDENT ACCT.)	19	(16)	14	(16)
EUSA/USMA	1	--	2	(2)
DOD/DA	7	(2)	2	(3)
DARCOM	1	(2)	1	(1)
OTHER	4	(5)	1	(1)

Furthermore, they serve in positions which are just as challenging as those of the males. Many files reflect female officers serving as company commanders, platoon leaders, and staff officers; and they are distributed to the various commands in essentially the same ratios as their male counterparts.

However, the files of some women in MI branch suggest that they have had some hurdles to overcome which may not have been obstacles for the men assigned to MI. For example, several women have found themselves assigned outside of their military intelligence specialty in traditional "female" jobs for their initial assignment. They were employed as protocol officers, administrative officers, or even librarians. Although this can and does happen to men, it occurs more frequently among women officers. In most instances, the officers handled the situation by performing excellently and proving they were capable regardless of the job.

Officers not working an MI-related job on their initial duty assignment frequently ask, "Will this job hurt my career?" I tell these men and women that only a bad OER will hurt their record. I advise them to perform superbly in whatever position they're given and to strive to get into their specialty as soon as poss-

ible.

As an assignment officer, I am frequently in contact with the G1s and G2s of the various divisions and separate brigades regarding the duties/positions held by the company grade officers assigned to their organizations. These discussions sometimes identify officers, male and female, who need to be moved either internally or through PCS in order to get them into MI jobs. The senior officers in the field are doing a super job training the female officers assigned to these organizations and ensuring that they serve in available MI positions on an equal basis with male counterparts. Consequently, the extent of job stereotyping (women in administrative-type positions) is minimal and decreasing. However, in those instances where an office holds a non-MI related position and does not have the opportunity to get into an MI job at the same location, an effort is made to move the officer to a post where he/she can get the desired experience. In all cases, however, the officer must be eligible for PCS movement in accordance with current regulations.

Officers in the field can do much to enhance their own chances for a successful military career. Below are things the individual can do to improve chances for success.

1. **DO CURRENT JOB WELL.** Don't get discouraged and let your performance decline because you don't like what you are doing. A poor report resulting from a bad attitude will hurt you later.

2. **ASK YOUR SUPERIOR FOR AN EVALUATION.** Do this *before* it is time to get an official evaluation report. Many times you can learn what you are doing wrong, make necessary corrections, and achieve success before the report is written.

3. **SEEK RESPONSIBILITY AND ACCEPT RESPONSIBILITY FOR YOUR ACTIONS.** Don't brood over being an S1, administrative officer, or motor officer. Accept the position and be the best they have ever had in that job. If you make a mistake, admit it. If you don't know how to do something, ask where you can go to find out how to do it.

4. **KEEP YOUR MILITARY PERSONNEL FILE UP TO DATE AND ACCURATE.** Every year, during your birth month, you have an opportunity to review your Officer Record Brief in the field. Make sure all the data is correct, to include your physical status, height, and weight. If you change your status — marriage, education, language skills, etc. — see your local Military Personnel Officer and ensure the data is forwarded for entry on your official file.

5. **MAINTAIN REALISTIC CAREER GOALS.** It is essential that you become primary specialty qualified in your first ten years of service — i.e., graduate from the officer basic course; serve in one assignment in a non-tactical environment; serve at least one assignment in a tactical environment; and graduate from the advanced course. Use these basic guidelines to establish your career goals.

Most women in MI have been successful. Their successes have come at all levels from Department of the Army headquarters down to platoon level. Women have excelled as commanders, staff officers, aides-de-camp, battalion S2s, motor officers, and supply officers. It is not unusual to find statements like, "Lieutenant Doe is the most outstanding company grade officer I have known" written by a senior officer about a female lieutenant working in a tactical unit. Other comments about females serving as company commanders are also quite laudatory — such as, "The best company commander within the command. She is an exceptional all round soldier, superb in execution." These comments are about women in command of all types of companies and indicate that women in MI are excelling in all positions within the Army.

Women officers can expect to receive the same type of assignments as men, with one exception: they still cannot be assigned to maneuver battalions. This limitation creates a challenge for commanders in the field. They cannot assign a female as the S2 of a maneuver battalion. this makes it somewhat more difficult to rotate male officers from maneuver battalion S2 positions to brigade and division staffs, as some of these positions will be occupied by females who are precluded from replacing the male officer in the combat battalion. Our efforts will continue to aim at assigning lieutenants on their initial duty assignments to tactical units. To date we have been successful in this endeavor about 70 percent of the time.

Women will participate in all specialties in MI branch. Figures available in December 1977 showed the following distribution of women in the three intelligence specialties:

MI (PRISPEC)
FEMALE CONTENT

SC 35

	TOT	FE	%FE
COL	77	2	2.6
LTC	323	3	.9
MAJ	437	10	2.3
CPT	766	41	5.4
1LT	289	53	18.3
2LT	271	95	35.1
TOT	2163	204	9.4

SC 36

	TOT	FE	%FE
COL	49	0	0
LTC	176	0	0
MAJ	294	3	1.0
CPT	383	16	4.2
1LT	65	4	6.2
2LT	106	34	32.1
TOT	1073	57	5.3

MI (PRISPEC) FEMALE CONTENT (continued)

	SC 37				MI		
	TOT	FE	%FE		TOT	FE	%FE
COL	52	0	0	COL	178	2	.01
LTC	109	0	0	LTC	608	3	.5
MAJ	229	1	.4	MAJ	960	14	1.5
CPT	455	27	5.9	CPT	1604	84	5.2
1LT	155	26	16.8	1LT	509	83	16.3
2LT	143	48	33.6	2LT	520	177	34.0
TOT	1143	102	8.9	TOT	4379	363	8.3

ME DEC 77 (Does not include FY 78 Accessions)

Currently, requirements dictate that we distribute fifty-five percent, of our new Lieutenants, male and female, to specialty code 35 (tactical/statgeic intelligence); thirty percent in specialty code 37 (cryptology); and fifteen percent in specialty code 36 (counterintelligence).

Promotion forecasts look very good for women in the MI. One of the most exciting indications of this was the recent majors promotion list, where three women were selected in the secondary zone ahead of their contemporaries for promotion to major.

Not only does the future look bright for these young women officers aspiring to new heights, but also for MI branch, which is fortunate to have these quality officers.

CPT(P) Stephen C. Conrad is the Lieutenants Assignment Officer for MI Branch. Previous assignments include 2d Infantry Division, Korea; USAISD, Fort Devens; DOD Special Representative, MACV, Vietnam; and Field Stations Augsburg and Berlin in Germany. CPT Conrad is a graduate of the MI Officers Advanced Course and holds a BA in Theatre from Ohio State University. He is currently working on his MS degree with Central Michigan University.

professional reader

INVASION NORTH AFRICA 1942

by S. W. C. Pack, Charles Scribner's Sons, New York, 1978. 112pp

On Sunday, 8 November 1942, A great combined force of British and American troops landed on the beaches of French North Africa to seize the vital ports of Algiers, Casablanca and Oran. This was Operation Torch, an amphibious assault that was to rank as one of the great strategic enterprises of World War II. Operation Torch was designed to give the Allies control of the coast of Northwest Africa from Tunis to Dakar and finally to open up the Mediterranean Sea from Gibraltar to Alexandria.

A few of the more noteworthy sections deal with the planning and logistics problems inherent in such a large-scale, two-nation amphibious operation. This joint venture required the coordination of 70,000 troops among the three services of both countries — General Eisenhower was in over-all command at Gibraltar. His staff was dominated by the British (including Admiral Sir Andrew Cunningham as C-of-C Mediterranean). What is especially interesting is that the US received all of the credit for this successful operation — for propaganda purposes — even through the majority of the participants were British.

S. W. C. Pack was born in Plymouth, England in 1904. He received a MSc in Engineering in 1927 from the Imperial College of Science and Technology, University of London. He served in the Royal Navy as a regular officer from 1927 to 1960, retiring with the rank of captain. Although the author was stationed in Washington during the development of the decision for Torch by the Combined Chiefs of Staff and did not participate directly in the operation, his meticulous research and writing skills present an excellent perspective of this phase of the war in Africa. The book contains a remarkable collection of photographs — mainly from the Imperial War Museum in London. British eyewitness accounts are also used to their fullest; they give insight into the execution of the operation — from junior enlisted to admirals.

During his naval career he served as the Director of Current Events at the Royal Naval College, Greenwich; Deputy Director, Naval Weather Service, Admiralty, London, 1951-1954; Deputy Director, Naval Education Service, Admiralty, 1956-1958; Aide-de-Camp to her majesty Queen Elizabeth II, 1957-1960.

The author's military awards include the Legion of Merit (United States) 1948, and Commander, Order of the British Empire, 1957.

Writings on similar subjects:

Sea Power in the Mediterranean, Barker, 1971;

Night Action off Cape Matapan, Ian Allen, 1972;

The Battle for Crete, Ian Allen, 1973;

The Battle of Sirte, Ian Allen, 1974.

1LT Sue Mason
Special Security Office
Fort Huachuca

TEC:

A Solution to Your Training Problems

by CPT Deborah M. Peckham

Commanders and supervisors throughout the Army share a common and perplexing problem: gaining and maintaining the job proficiency of their personnel. We all recognize the importance of fulfilling individual training requirements, but with the ever-increasing pressures of everyday responsibilities, reports, meetings, briefings, and staff studies unending, training too often comes in a poor second. Preparing and conducting quality training takes time. Tasking NCO's to write lesson plans, prepare training aids and reserve proper equipment and facilities merely serves to compound critical manpower shortages. Funding constraints seldom allow for adequate TDY to make additional service school training a viable solution. Unfortunately, while you ponder the problem, individual job proficiency is slipping.

In 1971, the Department of the Army recognized the magnitude of these deficiencies by characterizing Army-wide training as only "marginally adequate." This indictment prompted a full-scale examination of existing Army training in conjunction with an in-depth study of educational philosophies, techniques and innovations. The objective was to identify a practical and effective means of providing quality training to soldiers in the field. The result was the Training Extension Course (TEC) Program. TEC consists of pre-packaged, multimedia training kits designed to aid field commanders in accomplishing their individual training mission and to assist soldiers in upgrading their professional competencies.

It has been several years since the first TEC lessons, produced by the Combat Arms Schools, were fielded. In that time, the importance of the TEC program to unit readiness and its effectiveness in correcting individual training deficiencies has become a matter of record. Yet TEC can be of help to you only if it is used. It is our hope that this article will convince you to make TEC a viable part of your training program.

TEC lessons look and sound quite unlike the standard training references on which the Army has relied in the past. But the differences between TEC and conventional materials go beyond packaging and media. Every TEC lesson follows an eighteen month development cycle based on five educational philosophies. Understanding the foundations of quality training and their TEC applications will maximize the effectiveness of your training time and increase the TEC's benefits to you and your unit.

TRAINING IS SELF-PACED. Numerous studies have demonstrated that students learn faster, retain what they have learned and develop higher motivation when they control their rate toward training goals. TEC lessons are self-paced, allowing the soldier to work through them individually and to repeat lessons as often as necessary to master a particular subject, while also providing access to the same high quality instruction each time he uses the lesson.

TRAINING SHOULD OVERCOME A PERFORMANCE DEFICIENCY. Since we are after the achievement of specific performance objectives, no training need be undertaken if the soldier can already perform all objectives in a satisfactory manner. Each TEC lesson is accompanied by Lesson Administration Instructions (LAI) providing a diagonostic pre-test and post-test. These testing tools are designed to identify individual training deficiencies. Soldiers who have demonstrated the ability to adequately perform a particular lesson task can continue to other training areas.

TRAINING IS MOST EFFECTIVE IF IT CLOSELY APPROXIMATES REAL

WORLD CONDITIONS. When the soldier can relate training tasks to his job requirements, he will be more highly motivated and will learn better. TEC lessons are based on the tasks that a field soldier must know in order to perform his particular job and are designed to interface with the new Soldier's Manuals and parallel the tasks tested on the Skill Qualification Tests (SQT's).

SOLDIERS LEARN AND RETAIN MORE THROUGH DIRECT PARTICIPATION IN TRAINING RATHER THAN MERE EXPOSURE TO THAT TRAINING. Lesson materials requiring hands-on training are the most effective. TEC lessons are performance-oriented, allowing the soldier, to the greatest degree possible, to practice skills under the same circumstances and with the same equipment he would encounter on the job.

SOLDIERS WANT TO LEARN. Most soldiers strive for competency and professionalism in their chosen career. The key for management is to devise a management system to make the training materials available and job-relevant. TEC lessons and related hardware are highly adaptable to many training environments. A lesson may be used by individuals or in groups of as many as 10 soldiers. They are equally useful on ranges or on maneuvers as they are in garrison. Virtually any tent, quonset or M577 can be converted to a field learning center. Additionally, to ensure that each TEC lesson you receive will meet the specific needs of your soldiers, it undergoes field validations. During validations, the materials are tested by soldiers from the target population until the lesson proves that it teaches what it was intended to teach, you won't find it in the field.

Today, all TRADOC service schools are active TEC participants so, chances are, no matter what your unit, there are TEC lessons already available to meet at least some of your soldiers' training needs. At last count, 800 lessons had been fielded and of these, approximately 130 address common soldier tasks, with the remainder providing MOS-specific instruction. These 800 kits represent just a small fraction of the overall TEC program. An additional 1,174 lessons are currently under development with several thousand more programmed to begin development within the next year or so. Because units don't have a need for every lesson, the TEC program has devised a distribution system based on type units. Each unit, both active and reserve, is issued the majority of common-task lessons. MOS-specific lessons are distributed according to the military specialties authorized your unit.

Currently, intelligence-specific TEC lessons are being developed at Fort Devens, Fort Huachuca, and the Defense Language Institute. The Intelligence School, Fort Devens, is actively engaged in the development of approximately 100 lessons, 14 of which are now available. The Intelligence Center and School, Fort Huachuca, has fielded 12 17K lessons and is in the process of completing 62 26C lessons with projected distribution to take place by the end of this calendar year. Three more MOS's (96B, 96C and 96D) are scheduled to begin development in FY 79 with 26E programmed for FY 80. The Intelligence Center and School is also working with the Defense Language Institute to develop over 100 refresher lessons in support of interrogation training in Russian, Chinese, Korean, German, Czech, Arabic, French, Polish, Spanish and Vietnamese. It is anticipated that TEC will be available for over half of the intelligence specialties by 1981.

The US Army Training Support Center (ATSC) publishes a

TEC LESSON DISTRIBUTION BY TYPE UNIT

ENGINEER BN	276	TNG BDE (AIT)	241
TRANS BN	186	MAINT CO	217
SPT BN	232	HAWK BN	334
MI CO	275	AVN CO	188
S & T BN	206	MED BN	210
DIV SPT CMD	216	FA BN	362
CANNON TNG BN	228	USAFATC	326
MED DET	120	CIVIL AFF	191
ACR SQD	492	SUP & SVC BN	183
MP CO	207	AVN BN	233
INF BN	282	CAN SQDN (DIV)	362
69 SIG CO (AVST)	610	MAINT BN	200
SP FORCES GP	223	PNCOA	32
ADA BN	355	ENG CO	210
ROTC	102	TRANS CO	186
CHEM CO	181	ORD CO	199
MP BN	213	ASA BN	296
ARM BN	351	AG CO	170
SIG BN	267	READINESS GP	519
FIN CO	136	BCT BN	115

monthly TEC Status List which is distributed down to Battalion level. This publication lists existing lessons and those currently under development by title, number, subject area or MOS, responsible service school, and media. For example, the November 1977 issue contains a chart indicating the lessons a typical unit TEC library should contain for a given type unit. The chart is provided here for your information. Remember, the numbers are based on a maximum of 664 lessons fielded as of that date. The chart indicates that the typical MI Company should have 275 of the 664 fielded lessons, of which approximately 130 are common lessons and 145 pertain to particular specialties.

If your unit isn't currently receiving TEC lessons, accompanying hardware (Beseler Cue-See projectors), and ATSC publications, check with your battalion training officer as distribution is made to this level. If TEC is not available at all, or if battalion is not getting all the lessons needed to meet unit requirements, let ATSC know. Write:

Commander
USATC
ATTN: ATTSC-TEC-PD
Fort Eustis, VA 23604

or call Autovon 927-5731/4342.

The TEC program has made every effort to provide you, as commanders, trainers and soldiers, with lessons of the highest instructional quality. However, as with any new and growing program, there is room for improvement. ATSC is interested in hearing from you concerning any facet of the TEC development and implementation. The program is designed to help you; help us make it better. But first and foremost, let TEC work for you. The best training materials in the world are worthless if they go unused. You may find that your training problems have a ready-made solution.

Captain Peckham received her BS and MS in Psychology at the University of Rhode Island. She will be attending Duke University for her Master's degree in Counseling, Department of Education, to prepare for a teaching assignment at the US Military Academy, West Point, New York, in the Department of Behavioral Sciences and Leadership. She is a recent graduate of the USAICS MI Advance Course. She has served as the chief, Training Extension Course Branch, Directorate of Training Developments, USAICS.

"GESUNDHEIT"

HUMAN RESOURCES DEVELOPMENT

Army Futures -- 1980–1990

by
Dr. William R. Tracey

Like other organizations in the public and private sectors, the United States Army is profoundly affected by demographic, polical, economic, social, and technological change. Critical challenges and issues have already appeared as a direct result of changes in those areas. Additional challenges are certain to emerge in the 1980's. They must be faced head-on and shaped, redirected, or exploited by commanders and staff officers if the Army is to be able to perform its crucial mission. The goal of the Army is two dimensional: to achieve and sustain both land combat superiority over potential enemies and to attain and maintain a level of efficiency that is competitive with other services and governmental departments and agencies. Education and training have a central and critical role to play in achieving those goals.

It appears likely that any future war will be violent, fast moving, and of short duration. If that prediction is accurate, the US Army must be prepared to fight what has been described as a "come as you are war" — there will be no lead time to build up forces and conduct training. The needed training must be provided in advance so that all units are *ready* to fight when they are called upon to join the battle. Training, therefore, must be realistic, and it must emphasize the critical skills required to survive and win in a combat environment.

New weapons systems, both ours and those of potential enemies, grow more sophisticated every year. It appears that there is no substantive gap in weapons technology among leading military powers. But, arguments concerning the strategic nuclear weapons balance notwithstanding, our conventional forces are likely to be outnumbered in terms of people and weapons. If that is the case, the difference between winning and losing will hinge on the difference between the quality of the US soldier and the enemy soldier. Therefore, US officers, NCO's, and enlisted personnel must be better trained than their potential adversaries. Military competency — proficiency in the operation, maintenance, and employment of weapons systems — will be the key to success on the battlefield. Individual and unit training is the means of achieving and maintaining that competency.

In the civilian sector, a new discipline has emerged. It is called Human Resource Development (HRD) — a replacement for the old terms Education and Training or Training and Development. HRD encompasses the constructs of education, training, and development; but it is broader than those. HRD consists of all activities in which the job, the individual, and the organization interact as each develops and changes. Implicit in that definition are three characteristics: (1) activities are planned, organized, controlled, and evaluated; (2) activities are conducted within a specified time; and (3) activities are designed to enable an individual, group, or organization to do something it could not do before the activity, or do it more efficiently or effectively than before. HRD concepts apply to the Army.

What do the 1980's hold in store for Army HRD managers and specialists? A great number of important changes and challenges, some of which are already with us. Here are some of the major issues that must be dealt with and examples of needed thrusts to meet those challenges.

The scope of Army HRD will increase in terms of the types of programs provided and the numbers of soldiers involved. Several factors dictate expanded HRD programs.

First, technological advances will change the whole mix of military jobs and the skills soldiers will need to perform them. Some military occupational specialties will become

obsolescent; others will emerge. For example, 40 or more new and highly complex weapons systems are to be fielded by 1985 — posing a monumental challenge to the Army's training establishment. Those changes are certain to affect people as well as military operations and readiness. Unless Army HRD programs are responsive and provide the training and development needed in a timely way, soldiers will be caught with useless skills and the skills needed by the Army to remain combat competitive will not be available.

A second factor which will add requirements for HRD programs is the increase in the number of minority group members and women in the Army — including personnel in supervisory, managerial, and command positions. The projected decline in the numbers of young men in the 18 year old group will force the enlistment of larger numbers of women (perhaps as many as 20 percent of the force) and lower aptitude enlistees to meet end strength authorizations. HRD programs must be expanded and upgraded to train and employ those new resources properly.

Third, a high percentage of enlistees join the Army to acquire marketable skills or further their education. In addition, every soldier has a need to grow and develop, to refine old skills, learn new skills, and qualify for advancement. If those opportunities are not offered by the military job, the soldier will leave the Army. When that happens, the Army loses a trained resource and a need for replacement training is created.

Last, in Army units and organizations internal relationships frequently change. In recent years, there has been a "movement" toward planned change in organizations and organizational relationships through activities and concepts centered around the title of "Organization Effectiveness." In a less planned manner, the normal military factors of change of command, reassignments, expiration of term of service, establishment of new organizations (e.g., CEWI Battalion), and other changes require continuing HRD programs.

Specific predictions relating to the scope of Army HRD programs follow.

- Army-wide training programs, including basic combat training, voluntary general education programs designed to further personnel development, human relations training, and training covering specialized Army functions and processes will continue to crease in number.
- Advanced individual training programs, officer specialty training, and Basic Technical Courses, including formal school and on-the-job training to develop needed combat, combat support, and combat service support skills, will continue to be needed.
- Presupervisory training programs, focusing on the development of supervisory, leadership, human relations, and communication skills, will increase in number and scope to help new NCO's deal with the challenges of increasing efficiency and ensuring the motivation and job satisfaction of subordinates.
- Middle management development programs for officers and senior NCO's that emphasize management and leadership theory and principles, ethics, problem-sensitivity and problem-solving, and decision-making will be needed.
- Executive development programs for senior and general officers, focusing on joint and combined land warfare, planning and control strategies, forecasting, and the communication skills needed to create a proper motivational climate for subordinates will be required.

Costs of HRD Programs The costs of Army HRD programs will continue to escalate. At the present time the costs of Army training and education, including direct, indirect, and hidden, represent a very substantial part of the Army budget. Those costs are likely to increase, not solely because of the expansion of programs, but primarily because state-of-the-art hardware and learningware are extremely expensive to purchase or to develop. Training and development are manpower intensive and that fact alone points to increasing costs. The consequence of rising costs will be renewed demands by the Congress and higher level Army management for greater efficiency in the conduct of HRD programs. The continuation of a constrained resource environment is a certainty. The impact has already been felt, but pressure to reduce costs is certain to increase.

Specific predictions relating to efficiency and costs follow:

- All HRD costs and expenditures will be identified, tracked, monitored, reported, evaluated, and controlled.
- HRD cost ceilings will be imposed.
- Additional pressure to decentralize training and education will be applied by top Army management. Programs which are not requirements — driven will be eliminated. Institutional programs will be reduced in length. More and more training will be in the form of exportable training packages.
- Greater selectivity will be exercised in choosing learning strategies and media to make learning more efficient and less expensive.

- Redundancy in training will be eliminated.
- In institutional training participatory, action-oriented strategies will predominate. Wherever possible, simulators and simulations will be used to cut costs and shorten training time.
- A large share of the responsibility for conducting training will shift from the schools to officers and NCO's in units. More systematic extension training and OJT will be required.
- More training development will be contracted and there will be increased sharing of training materials within and outside of the military services to save developmental costs.

HRD Cost Benefits Top-level Army managers, and the Congress, will demand that HRD programs show cost benefits as well as demonstrate that they are cost-effective. Due to increasing HRD costs and increasing competition among Federal departments and agencies (as well as within the Army) for available funds, HRD personnel will be held accountable, not only for the cost-effectiveness of programs, but also for showing that the programs provide cost-benefits — in such measurable forms as mastery of critical skills, increased retention, more promotables, or other bottom-line outcomes. In short, HRD personnel must demonstrate that their programs are not just nice to have but that they make a measurable contribution to the viability and combat readiness of the Army.

Here are some of the major HRD thrusts which will be required to meet that challenge.

- Training and education will become more relevant to the current and future needs of the Army and the people who manage and operate it — commissioned and warrant officers of all grades, noncommissioned officers, and privates; commanders, staff officers, technicians, operators, and clerks.
- Training and development will become an integral and continuing (at least recurring) part of Army life.
- Training and development will be more closely tied to job performance and career development. Total career education, training, and development for accession to ETS or retirement for all officers and enlisted personnel will be the objective.
- A building block sequence will be used. Written performance standards at each level will be required for each Army job, based on front-end analysis.
- HRD systems and subsystems will be requirements-driven, and requirements will be identified by means of improved forecasting, focusing on Army personnel needs in terms of duties to be performed, responsibilities to be assumed, and skills and abilities needed. People, equipment, and concepts will be integrated to meet Army requirements.
- HRD programs will focus on improving the quality of Army life to enhance the job satisfaction of soldiers and improve retention.
- The effectiveness of HRD programs will be measured by comparing accomplishments against standards which relate to Army goals and objectives.

HRD Staff Army schools and other training personnel will be at the very center of a dynamic changing scene. They will become more concerned with futures — long-range planning, developing the architecture of the Army and its various functional elements, and designing strategies to attain Army goals.

- The need for long-term faculty renewal and development will be recognized and supported as critical to the success of HRD programs.
- The quality of officers and NCO's assigned to service schools will be improved.
- Commanders and subordinate leaders in units will be evaluated in terms of their effectiveness in training and developing their people.

Summary HRD managers of the 1980's must take into account the many changes that are taking place in the Army — in its composition, educational level, values and motivation, aspirations and needs. They must forecast the impact of political, economic, social, technological, and conceptual changes on the Army in general and on the training function in particular. They must bend their talents and energies to keep the Army efficient, effective, and competitively superior. At the same time, they must ensure that HRD makes its contribution to the improvement of the quality of Army life, that it is relevant to the needs of soldiers, that it contributes to the attainment of Army and national goals, and that it yields cost benefits.

HRD specialists must exploit the potential of new HRD strategies, techniques, and technologies to meet the challenges of making HRD responsive, relevant, personalized, efficient, and cost-effective. They must encourage innovation and foster acceptance of change. To do those things they must be adaptable and shockproof, thoughtful, decisive, informed and skilled. They must have a profound understanding of the Army's mission and goals, and an equally sound understanding of people.

Dr. Tracey is Director of Training, USAISD, Fort Devens, MA. He has been involved in education and training for more than 32 years as a teacher, principal, college professor, military school administrator, and consultant. He has authored three books and more than 50 journal articles in the areas of management, training, and education.

SENIOR OFFICERS TACTICAL INTELLIGENCE ORIENTATION COURSE

BG Albert N. Stubblebine III, USAICS Commander, with BG A. M. Stroud, Jr. of the 256th Inf Bde(M), Louisiana National Guard, and other members of the Senior Officers Tactical Intelligence Orientation Course.

The US Army Intelligence Center and School is sponsoring a new intelligence course for field grade officers. While its primary mission is to provide designated or incumbent Division and Corps level G2's and intelligence unit commanders with insight into present and emerging intelligence system concepts, doctrine and training, it is also designed for Commanders and G3's.

The first class of the Senior Officers Tactical Intelligence Orientation Course (3A-F31) completed the one week course on Friday, 19 January. Current and future commanders from Combat Electronic Warfare Intelligence (CEWI) units, Division and Corps level intelligence officers and Division staff officers from the First Cav Division, First and Second Armored Divisions, III Corps, Berlin Brigade, 101st Airmobile Division, the Louisiana National Guard and Reserve Components attended.

The course uses the TRADOC Instructional System Design Model and Life Cycles Management Model against which is related the current and emerging intelligence systems as well as intelligence concepts, doctrine and training developments. Also included is instruction on Intelligence Preparation of the Battlefield, National Intelligence Systems, Mohawk Survivability, OPFOR, National Training Centers and Division 86 (the new Army organization for 1986).

The next class will be held on 10-15 June 1979 and will be limited to 20 students. All field grade officers interested in attending the semi-annual TRADOC course should contact their training officer or NCO.

1LT David Brown
USAICS PAO

USAICS NOTES

96D NCO Working Committee at USAICS

As part of a continuing effort to improve the 96D MOS education system, NCOs within the USAICS community have inaugurated the 96D NCO Working Committee. The committee is designed to discuss any and all matters as they relate to the 96D career field.

The initial meeting was held on 8 Jan 79, and included representation from various branches within the Directorate of Training and the Directorate of Training Development, USAICS. NCOs of MOS 96D visiting Fort Huachuca are invited to attend future meetings and provide their insight and input to the career field's education process.

POCs for future committee meetings are SSG Moye/SP5 Ross, DTD, EPMS, 96D Team, AUTOVON 879-2465/3063.

TARGET TONE TAPE

The United States Army Intelligence Center and School has recently completed a 27-minute ETV target signature tape for the Ground Surveillance Radar Operator (MOS 17K) Course. The program is currently being used by the Department of Electromagnetic Intelligence, which is responsible for teaching skill level 1 AIT training. Upon validation by the Directorate of Evaluation, the tape will be distributed for use by field units.

The presentation enables students to view the targets (personnel, US wheel and track vehicles, OPFOR vehicles, and nonmilitary-type targets) and listen to them, after which they complete a self-quiz.

To date, the United States Army Intelligence Center and School has utilized this tape to train 50 17K students, and indications are that the target identification skills of these students have been greatly enhanced.

First Woman Marine Graduate

Marine SGT Sally A. Provencio receives congratulations from LTC Franklin Y. Harada, Director of the Department of Human Intelligence, Directorate of Training at the Intelligence Center and School, upon her graduation from the 96C Interrogators' Course. Provencio is the first woman Marine to attend the course which has just recently been opened by the Marine Corps to active duty women. "It's kind of neat to be a trailblazer," Provencio said, "and the course was very well taught." The product of a Marine Corps family, Provencio will now join the First Marine Division based at Camp Pendleton, CA. She has a three-year Marine Corps commitment which she says, "is just the start of my career." (Caption by Annette Castro, Photograph by Jim Yale, *The Huachuca Scout.*)

Editor:

A helpful hint for future articles on women in MI: although I liked the last issue very much, it concerned itself primarily with women who had very little branch experience. In some other issue, you might possibly get feedback from a few more "seasoned" representatives of the branch.

Thanks.
Julie A. Evenson
2LT, MI
Asst S2, 302d ASA Bn

Two typographical errors in CPT Woolverton's sketch of her motivation toward an Army career (*Women in MI*, pp 32-33, Oct-Dec 78) may have confused the reader and are corrected below:

Expect (not *except*, p.32) the most and attain the most!

The statement by General Maxwell D. Taylor cited by CPT Woolverton should refer to the Army as an organization "which has (not *was*) a mission of tremendous significance."

USAISD NOTES

100 Years of Service

Odie Facemire, Neville Upson and Hank Pruden are three men whose combined federal service time tallies 100 years. A lot can be accomplished in that amount of time . . . and a lot was. With their retirement last December, USAISD lost three very dedicated professionals.

Facemire worked in the Devices Section of the Training Support Division under the directorate of Training Developments (DTD). Both Upson and Pruden served as writer/editors in the Training Literature Branch of DTD. Facemire served four years in the Army Medical Corps and 29 with the Civil Service Commission. Upson spent 20 years in the Army, retiring in October 1960 as a Major before serving 14 more in Civil Service. Pruden served the Navy for three years, the Army for 17 and the Civil Service for 12.

After joining the Army in 1940, Upson spent ten years in field artillery and ten with the Army Security Agency. He attended USASA schools at both Carlisle Barracks, PA, and Fort Devens, MA, and served in command and staff positions in both CONUS and Europe. He was even an instructor at the US Army Security Agency Training Center & School (USASATC&S . . . now known as USAISD). He holds a BA degree in Economics from Boston University.

In 1964, Upson was employed by Headquarters, USASATC&S as a technical writer/editor in the Office of Doctrine and Literature to produce Field Manuals, Style Manuals, Training Circulars and other training materials. While at Devens, Upson says he has seen encouraging, dramatic changes in the quality of training literature.

Hank Pruden has given the Intelligence field the best years of his life. His interests lie in the mystery of flight and he has contributed much to the creation of Field Manuals, Technical Manuals, and other publications in the Training Literature Branch of DTD.

After enlisting in the US Navy and graduating High Speed Radio Operator's School, his amphibious training led him to the Pacific Theater where he participated in landings on the Marshall Islands, Gilbert Island, and Okinawa on Easter Sunday, 1945.

Pruden separated from the Navy in February 1946. After briefly attending college and simultaneously earning a private pilot's license, Pruden enlisted in the Army.

Except for one year as ASA Field Representative, Pruden spent 17 years with the ASA as an operator and later Trick Chief/Supervisor with alternating tours at the INTEL School (Vint Hill Farms Station, Carlisle Barracks and USASATC&S), Europe, and Korea. His most gratifying period of service was in Berlin during the Four Power Conference (1954) where he had the privilege of briefing then Secretary of State, John Foster Dulles.

Pruden's civil service employment began in February 1966 after a year at the Spartan School of Aeronautics where he obtained an FAA powerblout mechanic's license. At USASATC&S, he also earned a commercial pilot's license with a certified flight instructor's rating. Pruden served for one year as an instructor before becoming a technical publications writer/editor, a position he held until his retirement.

Facemire enlisted in the US Army for three years in 1943, and was recalled to active duty for one year during the Korean Conflict. Odie was initially employed with the Commission in 1949, but his recall put a dent in his continuing service. Since his return to Civil Service in July 1953, he has served with the School. Among his many accomplishments are: the design and engineering of the electric typewriter keyboard (forerunner of the MCT-4) Morse Code Trainer, and prototypes of (1) speaker lecterns used by instructors, (2) the sectional portable rostrum used in classroom instruction, and (3) the student carrel used in the individually-paced learning program. He has worked under every USAISD commander from the first, COL Ben Hurless to our present Commander, COL Stanley G. Kozlowski.

Facemire feels that the School's accreditation by the Northeast Association of Schools & Colleges as a post secondary, non-degree granting career institution was a very important breakthrough.

It is difficult to fully appreciate the dedication of these three gentlemen. All three have made significant contributions and we relunctantly bid them farewell, wishing them the best in the future. They were not just employees; they were a part of our history.

by SP5 Yvonne Lovern

MI Prayer

In the beginning, there was Chaos,
and the Chaos was the Infantry,
For behold, the Infantry was alone, lost
in the Wilderness and Bewildered.

And, verily, fear was with the Infantry
so that they cried unto the Lord,
Saying, with much beating of breasts,
"Lord, save us, for we are afraid".

And the Mighty Lord heard their grunts,
and set some of the Infantry upon
beasts of burden,
Horses, Camels and Asses, and these He
called the Cavalry; afterwards
the Cavalry
Became known as Armor; and into the
hands of others, the Lord placed
Bows and Arrows
And Rocks, and these He called
the Artillery.

And when the Lord saw what He had
done, verily, He was convulsed
with merriment,
And He laughed, saying in a voice which
rent the skies with thunder,
"Well, you can't win them all."

In following years, in a reign that cannot
be recalled, the Infantry, Armor
and Artillery
Again beat their breasts and cried unto
the Lord, terrified, saying, "Lord,
thou art Mighty, save us, for we know
not what our enemies are about to do,
and lo, we are afraid."

The Lord heard their cries and decided
to end their weeping and wailing
and terror.
The Lord sayeth unto them, "Hark
scoundrels, lo, I am not pleased
with your foolish fears
And ignorances. Verily, I shall send
to you the veritable cream of the
crop, a branch
Among branches, and they shall be of a
special breed, even unto the hundreth
generation,
And they shall be noble and intelligent,
and you shall recognize their calling
by the Halo
Which sittith upon their noble heads.
And, thusly, the Lord created
Military Intelligence.

Then the Lord said unto the Infantry,
Armor and Artillery, "When it is
dark and without Light,
MI shall hold the power to light the
halls of ignorance;
MI shall provide you with strong magic,
to cast a spell upon the enemy, for
lo, verily,
MI shall know the Enemy even better than
I, your Lord, and verily, when you
require EEI, thou shalt have it;
And when thou desire SITREPS and
clandestine listening devices, thou
need only to ask of
MI and thou shall receive, bountifully;
and hark, other diverse intelligence
shall you
Have, conveyed upon special channels
bristling with "close holds" and
codeword caveats;
Yea, verily, even unto VIP coverage
and Morse Intercept shall you have.
Ask of MI, and
Behold, all of this thou shalt have, even
unto the hundreth son of the
hundreth son.

And then, the Lord gave MI unattended sensors, SLAR, OB manuals, aggressor manuals,
FM 30-40, 05H's, and most formidable of them all, those mighty men who were cloaked in Darkness, the 36A's, 971's, and 97B's. And the "comfort arms" were jealous, for they had Naught. And the Lord gave MI seemingly Limitless TDY vouchers, civilian clothing, trench coats, SI billets, restricted areas, BAS/RNA, and best of all, Badges and Credentials.
When the other branches saw this, they fell upon their knees in wonderment, crying,
"Surely they are mighty, and Lo, the Lord our God is on their side and by their side;
Hark unto the power, glory and awe of Military Intelligence."
And the Lord sayeth, "Roger That."
Now today, Chaos reigns again; the Infantry is alone, broken down in the wilderness in
Need of spare parts it cannot requisition, the Cavalry walteth upon the gas shortage, and
The Armor and Artillery walteth upon cost overruns, without new equipment.
And lo, verily, the strong magic which MI held for so long was stilled; investigations
For failure to comply with EO 11905, AR 380-13 and The Privacy Act of 1974 were rampant;
Jack Anderson cried with glee, saying, "I will give everyone thy caveats, yea, even unto
The Special Intelligence series", and the Congressmen sayeth, "Hark, we shall take away
Thye ability to forsee the enemy, even unto the hundreth son; we will even take away
Your ability to eavesdrop, surveil, prosecute and spy on the enemy."
And the Lord looked down upon the mess and said, "Screw them all, the next time they
Can find, equip and train their own Military Intelligence Corps."

This ditty has been circulating around Europe, passed from "spook to spook." I thought that it was worthy of being shared with the readers of MI Magazine. CPT Mike O'Neill, C o F, USAICS; formerly of the 165th MI Bn.

Are you a Colonial Warrior?

Battlestar Galactica fans have noticed a strong resemblance between MI brass and the insignia of the Colonial Warriors. *Military Intelligence Magazine* wants your opinion, so break out the magnifying glass and tell us if that's MI brass. Results of this poll will be published in the April-June issue of *Military Intelligence.*

Additional Comments:

What do you think of the January-March 1979 issue of Military Intelligence?

Mail your comments to: MI MAGAZINE
Box 569
Ft. Huachuca, AZ 85613

BATTLEFIELD SURVIVAL and the Intelligence Preparation of the Air Defense Artillery

by CPT James R. Caswell

Introduction

The Tactical Intelligence Support Plan for most combat units of the US Army has worked smoothly for the past few years. Each of the combat arms has established a usable and concise intelligence operation satisfying the general and specific requirements of the individual tactical element. This is not true, however, of *Air Defense Artillery*.

Air Defense units in prepositioned or static sites are normally linked into US Air Force channels providing early warning information concerning types of enemy aircraft expected and sortie rates of enemy air forces. Such information is normally passed directly into operations channels (in most cases in real-time terminology). Intelligence reaction to this real time information is virtually impossible. Additionally, the intelligence use of operations channels cannot realistically be accomplished, as the air battle must necessarily take priority. Adequate intelligence preparation for unit survival, when conducting the primary mission of shooting down enemy aircraft, cannot be achieved in air defense units with the present lack of intelligence support.

Air Defense units not located in prepositioned or static sites, but designated to provide direct or general support to a Corps or Division Combat Team *have no capability* for establishing an adequate intelligence system for the type of necessary support for survival on the modern battlefield.

Air Defense Artillery needs an exclusive intelligence support structure that can meet the routine and unique intelligence needs of this most critical of the combat arms.

The following discussion examines the present need of the Air Defense tactical commander for prepared intelligence and explores a method by which it can be obtained.

IPB

Intelligence Preparation of the Battlefield is not a new concept for the US Army or the military community in general. The implementation and effective utilization of this method has been a weak spot in many first line units.

"IPB is a procedure that provides for the maximum integration and analysis of the factors of combat intelligence, weather, enemy and terrain to enable the Commander to exploit his knowledge of the enemy relative to the advantages and limitations of weather and terrain, to tilt combat power in his favor."[1]

The concept of IPB in relation to fighting and winning "The First Battle" of the next war is especially critical for those commanders who must fight "their" first battle after a

1. Major George A. Gaun, Intelligence Preparation of the Battlefield, MI Magazine, Summer 1976, P. 30.

major deployment operation. Those commanders who must move their units several thousand miles from garrison into a "hot war" environment, cannot expect to gain the intelligence necessary to accomplish the mission after they arrive. IPB information must be available to the combat commander before he deploys.

Survival Intelligence

Modern intelligence support for the tactical commander must go one step beyond allowing him to "tilt the combat power in his favor." It must provide him with a calculated degree of survivability in an environment of rapid changes and unstable operations.

An often overlooked requirement of each commander is to *survive* long enough to perform his mission and win the battle.

> Survival intelligence is any information on weather, enemy and terrain enabling the combat unit to fight on the modern battlefield and survive long enough to accomplish the mission and win the battle.

A key to unit survival on any future battleground will be the availability and efficiency of its intelligence assets and the intelligence preparation of the commander. The combination of comprehensive intelligence preparation and capable on-the-spot intelligence operation will give the combat leader the necessary edge.

The BICC

Just as IPB is the modern procedure for gaining the tactical information needed by the tactical commander, the battlefield information coordination center (BICC) is the staff structure designed to procure and produce it. The IPB concept can only be effectively utilized and implemented by a system capable of gathering the information required and correctly processing it into a usable intelligence product. The BICC was designed to handle IPB and other intelligence tasks at the brigade/group and battalion levels. The BICC should operate, on a smaller scale, in the same manner as the tactical intelligence elements of the division G2 and the separate Military Intelligence Detachment. The BICC in the Air Defense Brigade/Group, should be able to produce information pertinent to many missions, and process this into usable intelligence according to the specific needs of the Air Defense commander.

The operating staff of the Brigade/Group BICC should consist of one 35A/37 officer, one intelligence sergeant and four 96B intelligence analysts. The individual battalion BICC should have one 35A officer and one 96B intelligence analyst. The proposed structure for an Air Defense Group is illustrated in Figure 1.

The product of this tactical intelligence operation will be introduced into the line unit through the intelligence operations channel of the BICC. The BICC relationship to the Brigade/Group should be as shown in Figure 1. Daily intelligence activities will necessitate a very close working relationship between the BICCs at all levels. Major tasks of the combined BICCs should include working with the scenarios of various real-world contingencies, formulation of mission intelligence packets, and development of all, both Air Force and Army intelligence channels. Additional ongoing projects conducted within the BICCs should take the form of in-depth air and ground forces order of battle, templating of doctrinal ground and air tactics, exercising and identifying tactical intelligence support problems, and conducting general and specific IPB for individual unit missions.

Intelligence Requirements

Intelligence warning for the Air Defense commander must be extremely *timely* due to basic maneuver restrictions of the

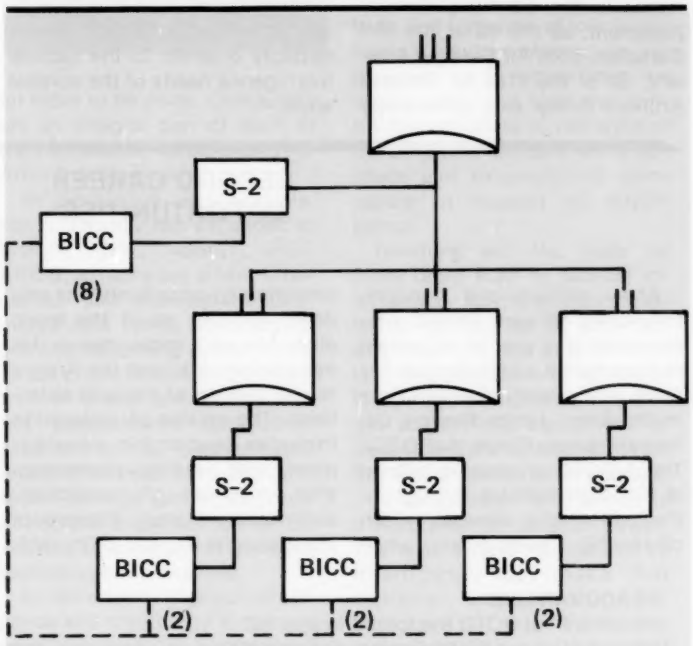


Figure 1. Proposed BICC Organization for an ADA Group

system and it must be *accurate* because of the high visibility of the equipment and the vulnerability of component systems to enemy detection and attack.

Intelligence for the ADA unit must encompass critical elements of information that surpass the standard factors collected for the ground maneuver forces. These extensive requirements also go beyond the normal on-hand assets of the Air Force. Adequate intelligence information for Air Defense units must be a special combination of information that is available to both the ground combat units and the Air Force. Air Defense intelligence must be a composite "all source" collection effort.

Some of the specific categories of intelligence critical to air defense preparedness include up-to-date air order of battle, air-to-ground attack patterns of opposing forces, comprehensive EW/OPSEC analysis and defense, enemy air sortie capabilities, accurate and timely maneuver force information, and pinpoint locations of enemy artillery elements.

Timely intelligence for some of the less mobile units of air defense must be available soon enough to allow the unit to displace before the maneuver forces. The high mobility of the present battlefield situation must be compensated for in the Air Defense units by obtaining lead time intelligence. Lead time intelligence will allow ADA elements to react to the fluid tactical scenario without fear of being overrun by swiftly moving enemy forces, or of not maintaining the air coverage necessary to friendly forces.

Conclusion

The intent of this article is to raise the general consciousness of the military community towards a relatively unknown, but critically serious problem in our modern warfare plan. The lack of an adequate intelligence support system for the Air Defense unit would, in my opinion, cause a serious degradation in the combat effectiveness of a major component of the tactical team.

Given the prerequisite that the intelligence needs of an Air Defense unit are unique in many ways, that the concept of intelligence preparedness is necessary for survival on the modern battlefield, and that the battlefield information coordination center could provide the means of an adequate tactical intelligence system, a question that presents itself is: "Why we don't have some such system now?"

A 1974 graduate of the University of Washington, CPT Caswell has served as an Armor platoon leader in the 3d Army Cavalry Regiment, as the S2 of the 2nd Battalion, 55th Air Defense Artillery, S2 of the 11th Air Defense Artillery Group and is currently an Air Threat Analyst with the Air Defense School. His prior service background includes tours in Vietnam and Korea. As a Military Intelligence officer, he is strongly oriented to the tactical intelligence needs of the combat arms.

SECOND CAREER OPPORTUNITIES

Army officers and noncommissioned officers (06-E6) who are within one year of retirement or have retired within the last five years may qualify as instructors in the Army Junior Reserve Officers' Training Corps (AJROTC). The AJROTC program is offered at 670 high schools throughout the nation and stresses youth citizenship development while providing an opportunity for students to learn about the basic elements and requirements for national security and the Army's role in support of national objectives. The course of instruction includes leadership development, map reading, marksmanship, methods of instruction, and military history. Classroom instruction is augmented by military drill, orientation trips, field trips, mini-summer camps and orienteering.

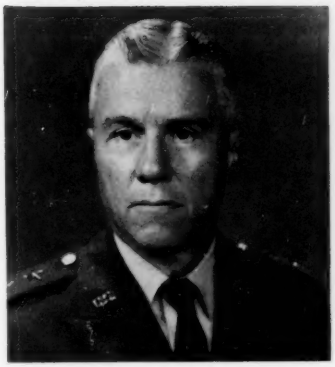
Active duty personnel and retirees may get further information concerning pay, working hours, benefits, etc., or may make application by calling the nearest ROTC Region headquarters listed below.

HEADQUARTERS	AUTOVON	COMMERCIAL
US Army First ROTC Region, Ft Bragg, NC	236-6220	919-396-6118
US Army Second ROTC Region, Ft Knox, KY	363-7149	502-694-7348
US Army Third ROTC Region, Ft Riley, KS	856-6828	913-239-6727
US Army Fourth ROTC Region, Ft Lewis, WA	357-5737	206-967-4886

AN ACSI VIEWPOINT

Computer Applications in Intelligence

by MG
Edmund R. Thompson



When I was first commissioned, digital computers were just being introduced into the Army. Wrist watches all were analog. Man was still chasing the four-minute mile, and only dreaming of going to the moon.

In the 27 years between then and now the Army has fought in two wars and the world has witnessed continuing technical and social revolution. Military Intelligence during this same period of time has had to keep up with these technological and social changes. In some areas of intelligence we have done an outstanding job of capitalizing on new technologies. In other areas we are still trying to capture and harness them to our advantage.

In the forefront of the technical revolution has been the digital computer. It has given us the capability to solve in hours problems that used to take years, and has taken the drudgery out of repetitive tasks and the risk out of dangerous tasks, and has done these tasks better and quicker than man could do them. Digital computers can simulate and design other computers and machines, can control whole factories and assembly lines, and can store and recall millions of words.

We in intelligence have also come a long way in our use of computers, although we have a lot more to be done. Computers are an integral part of each of the functional subsystems of Army Intelligence.

In production and analysis, our vocabulary has expanded to include IDHS, ASSIST, I^2S^2, AIDES, to name but a few. Internetted and interactive automated data banks are taken for granted. Modeling supports our threat projections and the injection of those projections into net assessments and other studies. In the sophisticated analytic arena of scientific and technical intelligence, we could not do the analytical job we do without simulations of complex technological processes.

In collection, signals intelligence and cryptology long have been pioneers in automation. Those functions could not be performed in a meaningful way without computers. Increasingly, imagery intelligence also is coming to rely on automation in data transmission, enhancement and interpretation. HUMINT uses the same kinds of data banks for targetting and operational development as the analysts use in production.

Counterintelligence, which itself is a user of automated files, plays the increasingly critical role of safeguarding the Army's use of computers. Army counterintelligence has been a pioneer in the new field of computer security.

Much more remains to be done. Not only do the magnitude and expense of our automation requirements cause our progress to be slower than we would wish, but also the continuing advances in the state of the art preordain continuing upgrade and expansion of computers in support of intelligence.

Nowhere will the pace be more rapid than in tactical intelligence. Automated processing of the myriad of data that will flow from the new and following generations of ISTA (intelligence, surveillance and target acquisition) equipment is essential if the full capability of that equipment is to be realized.

In conclusion, intelligence is a multiplier of combat power. The wise use of computers by intelligence can make that multiplier exponential. Computers are not only here to stay in intelligence, as in the rest of society, but they also constitute one of the most important ingredients in improved intelligence for the commander. I have seen us come a long way.

Notes from the Past

by
MAJ William L. Howard
edited by R. M. Kegresse

Part I

The following article, "Notes from the Past" arrived at Military Intelligence Magazine as a two hundred page manuscript. While articles of this length cannot be considered for publication, Major Howard's MI perspective of his tour in Vietnam seemed an important one, and one that would interest our readership.

"Notes from the Past" will be presented in two parts [to conclude in our April-June 1979 issue]. The editor would like to express special appreciation to Margaret Kegresse, without whose efforts the manuscript could never have been condensed into the version presented here.

Editor

I suppose everyone who has served in the Army has planned on writing about the experience and I am doing just that. It has been said that the issue in Vietnam was a moral one; however, the average GI wondered only "What am I doing here, when can I leave; and how do I stay alive and in one piece until then?" All other issues were secondary.

After graduating from the Citadel, I began my military career at Aberdeen Proving Ground, MD. Having received my branch choice: Ordnance, I trained as a Tank-Automotive Maintenance and Repair Officer. The class was uninspiring: we were told the Army was doing away with that job upon our graduation. I spent six weeks learning about voltage regulators, cross drive transmissions and a fascinating game called "dip stick tag" which consists of spending eight hours a day checking the oil level in one jeep. If one is very conscientious, the jeep will need another quart by the end of the day.

After the course, I was assigned to Europe. I flew out of McGuire Air Force Base, NJ, with an overcoat, a briefcase, and a 60-pound suitcase carrying enough uniforms to last at least two months. After three years in Germany, I received orders for Fort Holabird, MD for the Military Intelligence Officer Orientation Course, enroute to Vietnam.

There is no way one can adequately describe his feelings prior to entering a war zone: anxiety, exhilaration, excitement, despair and, of course, fear. All of these played on me throughout the course. During the last few days of class, there were too many things to do, and no time to do them. Making out a will, unpleasant enough in peacetime, was far worse when heading into combat. The thought, "what if I don't make it?" kept pushing its way into my mind.

After the course, I took a few weeks leave and dug out my suitcase once again. Packing it with everything I would need, I managed to stay within 60 pounds again. With orders and records in my briefcase, I headed for the airport. As it was summer, I was spared the burden of an overcoat, but I now had a gas mask. At the Oakland Army Terminal in California, I was told it would be a few days before I could ship out, so several other officers and I went out on the town. After a leisurely dinner at one of the local restaurants, we went to a lounge where the topless Go-Go craze had started. Something to remember in Vietnam!

The Oakland Army Terminal was a big nothing filled with people. Most everyone was "going over" and no one seemed to be coming back. Suitcase, briefcase and gas mask were now joined by a duffle bag crammed full of jungle fatigues and boots. Resembling a small trunk, my suitcase was the subject of many jokes. Was my wife in it? I said it was just a Go-Go girl.

Processing included a check of immunization records. Mine had been lost in Europe. The medic gave me a skeptical look and asked if I felt all right. When I said "Yes," he issued me a complete shot record. I guess he figured I couldn't take anything over that wasn't already there.

I moved off to a waiting area

looking like a self-propelled baggage cart. A huge building with rows of double bunks, it reminded me of the concentration camp I had seen at Dachau a few months earlier. Fortunately, it was empty and we only had a few hours to wait. I ran into classmates from Holabird and we discussed the coming elections and Vietnam. A great deal of hostile activity had been predicted for the Saigon area as a result of them. We were due to land in the midst of it.

We soon loaded on buses for the trip to Travis Air Force Base. The ride seemed endless until someone broke the silence by asking if the bridge to Vietnam was a toll bridge. If so, he continued, he was broke and should be let off. I wondered what the stewardesses would be like — they'd be the last American girls I would see for a long time. The girls, three apparitions in purple judo suits, greeted us as we boarded the plane. (To this day, I am convinced that the designers of their uniforms hated women and GI's.) But they were pleasant and efficient, and would make an otherwise terrible flight bearable. As we became airborne, I tried to fall asleep.

We refueled in Hawaii and flew out over Diamond Head for Manila. Our stay in Manila was confined to the departure lounge. It was 4 a.m., hot as high noon and becoming hotter. We soon left for our final stop — Bien Hoa Air Base. The reality of the war was upon us and an icy silence hung over the plane. The stewardesses seemed quieter. I wondered how many of us would see them again. As we approached Vietnam, the pilots flashed the seat belt sign and announced the ground conditions: "light to moderate ground fire." No one laughed.

After landing, a military policeman appeared on board and gave us a short briefing before we deplaned into the hot and humid Vietnamese night that punched us all in the face as we proceeded to a waiting area. The MP's were in armored cars of WW II vintage and I seemed to be watching (or living) a John Wayne movie in a non-air-conditioned theater. The waiting room was a concrete pad covered by a corrugated metal roof. It was teeming with people. Troops going home moved out to the plane cheering. They were a strange mixture of people, young and old though all were old in a sense. There were "Green Berets" and troops with souvenirs. All had medals and ribbons. I wondered how I would feel in a year, hoping I'd be cheering too, on my way home. I wished I were with them then, as I moved on to a briefing.

On the bus to the replacement center in Long Binh, the NCO in charge asked if anyone had violated orders and brought personal firearms that would be needed for safety on the trip. No one admitted anything, believing the MP escort would provide any needed defense. As we started through the gates, however, the MP's dropped off. We did reach Long Binh safely for a briefing on currency conversion, a trip to the bank, and finally, a bunk to sleep in.

Not much sleep — another briefing was scheduled. It was a pep talk about our progress in South Vietnam. We were told the replacement center was verifying orders and arranging for us to be picked up by our units. Although I was a captain, my orders had been prepared while I was a first lieutenant. I pointed out this error but no one seemed interested. I was told to wait till I was called to ship out. Outside, I learned Long Binh was only attacked about four times a year and that it had been four months since the last attack! I was relieved to ship out with orders assigning me to a Military Intelligence battalion. The compound was attacked the night I left and several replacements were killed.

The ride to battalion took me through the outskirts of Saigon. The war seemed less pervasive in the day time, although one never really escaped it. Each hut and shack was a potential VC headquarters and each passing motor bike carried a potential grenade-throwing terrorist.

At the battalion, I was told I would be sent to an MI group as a maintenance officer. I was also told to wear insignia other than MI — intelligence officers were considered prime targets.

The following day I was picked up by a Vietnamese driver. I was nervous about going off with him but managed to conceal this. He dropped me off at a building where a commander decided it would be a waste of my talent to operate his motor pool, so I was assigned as an agent handler for one of his sub-units. I was to be picked up by a driver the next day. After waiting endlessly the next day for the driver, I picked up a phone in the lobby and asked for a MACV number. The operator asked if I had a Tiger phone and I said it was regular Western Electric. I had to survive his tirade before he explained that there were several circuits and MACV was on the Tiger circuit. I finally reached an Admin officer who assured me the driver was on his way, but late. When he did arrive, we drove to the MACV headquarters where I was informed that since I had no training for agent handling work, I couldn't be used at the time (though I would be given on-the-job training). Back to the motor pool and supply section. I could not seem to escape the motor pool. I mentioned that there was a technical intelligence unit at Ton Son Nhut Air Base where I could work. I had been told that a captain there was leaving in a month or so and, if I could be carried as excess until he left, they probably could use me. They said they would let me know the following Monday. It was Thursday, and I began to wonder if the entire year would be spent looking for a job.

Monday arrived and I reported to the unit for still nothing, back to the hotel. After two weeks, I had received no mail from home. I had told everyone I would forward an address as soon as I

had one (but still had not found a home).

The following Monday, job hunting began again. I caught a ride to the technical intelligence unit with an officer specializing in aerial photography. He had been mistaken for a helicopter pilot and sent to an aviation unit down in the delta to fly! At the unit he was put to work, but I was given the same, "Sorry, no work today" routine.

The next morning I was told I had a job that seemed to offer possibilities. I would be based in Saigon with two field teams in outlying areas. Initially, I took charge of the weapons and munitions section. Uncertain of my duties, I managed to fake looking important for a while. My instructions were to "take temporary charge and become technically proficient," but at what, it wasn't said. I was issued a driver's license which was useless as I had nothing to drive. (When our medical section officer left though, I did get his jeep.) In keeping with instructions, I decided to become a weapons expert and began reading the book, "Small Arms of the World." The weapons turned into our unit represented all nationalities and an increase in communist bloc weapons had been recognized. Reading made me appreciate Soviet arms development and major Soviet weapons. I had already been taken to the ammunition storage area, a large dump where we had two Conex containers stuffed full of "goodies." As they were the responsibility of my section, I decided one day, to clean them up and dispose of useless material with two sergeants. One can, labeled "Chemical Munitions," contained shrapnel from a grenade and irritant gas that spilled over me and left me in tears. I could only walk down wind until it was blown off — and there was no wind that day.

I was soon advised I would be going to Nha Trang to fill in for a captain on thirty days leave. (I was getting a bit tired of life in Saigon.) Before leaving, though, I visited the new MACV building. It was white stucco and cement block, air-conditioned and very posh. You could almost forget it was Vietnam.

I soon found out that lost paychecks, though not a big thing anywhere else, were hard to replace in Saigon because of black market operations. First, you must fill out a form which no one seems to have. The signature must be witnessed by two people (who presumably will pay back the government if you skip town) and other witnesses must be found to witness their signatures before a new check is issued by Finance. By the time this is completed, the original check (missent to your old unit) shows up.

I skipped breakfast so as not to miss a flight to Nha Trang. I borrowed a Thompson submachine gun, loaded my duffle bag and hiked to the airfield where I was told the flight had been cancelled — I should come back tomorrow. The next day, I waited an eternity before the flight was called — then had to walk for miles before reaching it. It really wasn't that far but my duffle bag, attache case, submachine gun and ammunition made it seem far. I was thrilled to view Vietnam from the air on my first in-country flight.

A jeep awaiting me at the airport took me to a villa where I would stay. It was a dump that soon enough seemed a palace to me. My office was very small and located in a building in downtown Nha Trang which also housed the POW Interrogation Section and our Technical Intelligence operation. The roof had night club possibilities but was used only for an occasional view of the city. There were many Vietnamese troops in the building.

Nha Trang is a coastal town located at the mouth of a small river and near the base of the main mountain range of Vietnam. The captain I would replace suggested we go downtown for a French meal. I worried about terrorists attack but went. To this day, I don't know what I ate, I was simply too scared!

I found my job included briefings in the morning and checks with the Collection Office twice daily. Sometimes I would phone one of the divisions about material, occasionally I would personally pick up such material.

One hot afternoon after returning to the villa, a shotgun blew out my window. Our Chinese guard had been cleaning his (loaded) weapon and it went off while pointed at me! I made a mental note not to stand in open doorways when he was cleaning his weapon.

One day I was told to go to Phu Hiep for a captured first aid kit, some weapons and to meet people I'd work with in the coming months. I went by helicopter with a gunner who didn't know how to load a machine gun. I showed him how — it seemed important. I learned later that the crew was composed of men just thrown together in a borrowed copter. We soon landed at Phu Hiep, a place resembling a giant sand box. Heading for the field, we stayed low to avoid the chopper's prop wash. We got filled with sand but not buried in it. The sand was simply ground up dirt. The buildings were one story wood frame structures with walls four feet high and screen wire from there to the ceiling and roofs of corrugated metal. Not much, but preferable to the "buildings" which were merely tents. The S2 of the unit directed us to a captain in charge of the POW Interrogation Section. He had a large collection of captured weapons that were getting rusty. Although he was presently keeping them, it would not be long before he called us to evacuate them. I figured how much space they would occupy in an aircraft.

After completing our job there, we headed for the mess hall. The meal was excellent (I had had only a plate of beans in the past 24 hours). By stateside standards, it would have been terrible but it tasted delicious to me. Here I saw my first "Sundry Pack" of field soldiers' extras

like candy, cigarettes, toothpaste and stationery. Much better than the "C-Rations."

We headed back to the airfield to wait for a ride home. After an eternity, the copter arrived and we boarded. Back in Nha Trang, I prepared a trip report and arranged for shipment to Saigon of the items we had picked up.

Arriving home, I discovered the Chinese guard had lost his shotgun, causing mass confusion until the houseboy said he had found it lying loose and had hidden it to keep it out of VC hands.

The next week we flew via "Air America," the CIA's air force to Pleiku Mountain to visit the Fourth Infantry Division. It was an old "Gooney Bird" airplane and I felt I was part of some cartoon. We stopped at Tuy Hoa, Qui Nhnon City and Pleiku, delivering supplies along the way. At the airfield we found a ride to Dragon Mountain on a 2-1/2 ton truck. It was open and had no seats, so we sat on the edge and hung on. Arriving at the camp, we were still a mile from our destination. Here I was, an intel officer, thumbing rides and walking. Two "hitches" took us to the Division area — with another long walk to Division HQ. All to evacuate 17 weapons. The weapons were supposed to be at the edge of the main tent in a Conex container. They weren't and no one knew what happened to them. Did find three weapons from another area so the trip was not a total loss. Also met different people and had a first hand glimpse of division level life. We returned to Nha Trang that afternoon by the same means — hitchhiking — to learn that our jeep was missing — back to hitchhiking.

The next day I wrote a letter home voicing my frustration against the war trophy program in which I was involved. Americans have a fascination for captured weapons that goes back to WW II when most everyone brought home something as a souvenier. Soldiers in Vietnam felt they should have the same privileges but since much useful information could be gained from the examination of captured weapons, almost all such weapons were on the information collections lists requiring turn-in. The only weapons not needed were French "relics" (WW II surplus issue items); however, if they were automatic, they could not be taken back to the states.

I had been in Vietnam over a month and it was Friday the 13th. We were going to Ahn Khe, the rear base camp of the 1st Cavalry Division. Each time we started out, we had to return for something we'd forgotten. We finally made it to the airport and caught a ride on a Beaver, a fixed wing airplane slightly larger than a Piper Cub. We had an excellent pilot (who eventually taught me how to fly) but no sooner were we airborne than the radio direction finder went bad. We stopped at Phu Hiep to get it fixed, they had no parts, so on to Quin Nhon where we did manage to fix it. Stopped at Bong Son to refuel, then on to Ahn Khe. It seemed to me that the Division rear was closer to the front. One thought that the Ho Chi Minh trail from North Vietnam through Cambodia and Laos to South Vietnam was the main enemy effort but Ahn Khe was closer to Cambodia than Bong Son. In fact, it looked like the North Vietnamese Army would have to get completely past the Fourth I D to get to the First Air Cav. The First Air Cav had problems most of the time. The tenacity of the NVA was everywhere apparent. It came into South Vietnam and simply disappeared into the woods to emerge at odd times to wreak havoc on the people. If ever an army deserved the title of the "Invisible Army," it was the NVA.

On our return to Nha Trang, I discovered that the jeep's rear axle was broken and spent most of the next morning trying to get it fixed. HQ Motor Pool said it would take several days to repair but I managed to get them to remove the broken shaft so I could run with front wheel drive. The Vietnamese mechanic, deciding it would be easier to fix than to make temporary repairs, repaired it that day. With three men to our operation, we did not have our own motor pool for routine work and repairs, so much needed maintenance was overlooked. We had a complete tool box, but while the NCO's did an excellent job of keeping it running, they lacked the motor pool touch.

The following week, I went to Saigon to see if a replacement had been found for a departing senior NCO. Ten minutes into the flight, it became unusually quiet — both engines had stopped. I could see nothing but jungle below. Fortunately, the pilot restarted the engines, but they failed again and we had lost altitude. I wondered what we would do for weapons if attacked by the VC. It never occurred to me that I might not survive the crash. Then the engines restarted and we continued in silence lest our voices disrupt the engines.

I was transporting a footlocker of munitions back to CMEC. They had been used in a display at the Fourth Division and were being returned to Saigon. Regulations prohibited carrying explosives on aircraft but the ones I carried were inert. The foot locker fell apart during unloading at Thon Son Nhut AFB, dropping bombs, rockets and grenades everywhere and causing a major panic. It was embarrassing but there was nothing I could do. I recovered the munitions, then found a jeep to take them to the office. Still no replacement NCO. Back at the air field, the only flight I could find was to Cam Ranh Bay. I took it hoping to fly from there to Nha Trang. The only one I could find was leaving the next morning. It was too late for a truck ride, which would also be dangerous. There was nowhere to go, nothing to do, and no place to eat. Dinner was a greasy hamburger and lukewarm coffee from a PX concession truck. After trying benches and

floors, I slept on a baggage rack. This was fine until baggage handlers dumped a load of boxes, duffle bags and other assorted items on me the next morning. After cold coffee and leftover hamburger, I flew to Nha Trang.

My local boss called Saigon to say what a wonderful job I was doing and (as I hadn't done anything) I felt encouraged. He told me to go to Phan Thiet for three days. It was so far out that going further would require changing sides. It was also the Nuoc Man (rotten fish sauce) capital of Vietnam. A few drops would make one ill. Imagine my delight at spending three days near the main factory! There was a battalion-size unit there from the 101st Airborne Division. On their situation map, a VC division covered three sides and the South China Sea covered the fourth. Although the VC division was not at full strength, I did not care to stay too long.

My NCO and I had planned to go to Phu Hiep one day but were unable to find a flight north to pay a liaison visit to the Koreans and check weapons they had captured for anything new or significant. We took the jeep and headed out. A short distance out of town we came upon a road block. A South Vietnamese truck was bringing in dead VC, a gruesome sight. After getting around that obstacle, we passed some Korean convoys heading into town. The troops were heavily armed and wearing flak jackets. It looked like we were heading into the thick of things. My NCO was apprehensive and so was I. By mutual consent, we called off the trip. We later found we had been on the wrong road, heading into the jungle, not toward Ninh Hoa.

A regimental attack on the Koreans made that week a hectic one. A restaurant with 30 Americans inside was bombed. Later, the Koreans came to us for more supplies. They were very dependent upon us for ammunition and supplies while we seemed to receive very little from them. So large an amount of PX items went to Korea that I once remarked it would be simpler to send everything straight to Seoul, thus eliminating the Vietnamese middleman.

Walking home with friends from a movie one night, I stumbled over a metal object. It was a round cannister resembling the Blu 3 bomblet converted by the VC to mines and grenades. Considering a recent wave of terrorist activities, we scattered. Someone called the EOD and while we waited, some brave fool approached it with a stick and began poking it. It turned out to be a float ball from a toilet tank. We had a good laugh feeling foolish, but better foolish than sorry.

October ended and I headed to Saigon for pay day in hopes of moving to a new area. Somehow, I missed pay day. I did receive $100 in cash from Finance with the assurance that the rest would be sent to the states.

It was still undecided where I would finish my tour but it appeared more and more certain I would stay in Nha Trang. My NCO was to be replaced by another who would be going out into the field as an extension of my team. I hoped this would mean less running around for me.

In November, the jeep broke down again. We spent hours trying to find parts before locating them in the black market. The next day we were told a big inspection was coming up (so was a typhoon). The NCO's made the office so clean I was inspired to do some work but, as there was none, I let the feeling pass. In preparing for the typhoon, we could only stay out of its way. Troops put sandbags on the roof to hold it down. Both typhoon and inspection left us unscathed. The damage was done in Tua Han and Ninh Hoa.

One day, an NCO and I went up to Bong Son to examine some Soviet radios captured at a place called Miami Beach. There was also a large collection of spare parts, rubber boats and assorted naval equipment. We took pictures of the radios. For some reason, I was considered an expert and was called to brief the generals that night. I was rather apprehensive when I found the unit had a policy that jungle fatigues had to have sleeves rolled down in the evening. Since our unit had no such policy and I had big arms, I had cut the sleeves off so I could roll them up without making a tourniquet of my shirt. Despite the uniform, I was later told I had done a good job. The following day, there were questions regarding custody of the radios. We finally got them and they were sent to the CMEC museum.

What impressed me most about Bon Son was the Vietnamese people of that area. They looked at us as though we were hired killers, even children had hate in their eyes. All I saw were laundries and tailor shops for GI wash. I wondered what would happen when we pulled out. By this time, I had begun to feel despair as I more fully appreciated our situation. We were fighting an enemy that always slipped into Cambodia and out of reach. No wonder the war went nowhere. Based on various reports, we made progress against the VC but we never seemed to run out of them. The more I learned, the less I understood.

My two NCO's returned from a trip to Saigon with a gas detector set recovered in our zone. I went to HQ to prepare a report. While I was there, some VC threw a hand grenade into the NCO club. No one was hurt but a large crowd gathered and a second charge went off, injuring several of the onlookers. The HQ soon looked like a student riot; people in civilian clothes with helmets, people in uniform, people in underwear, all with weapons running around the compound. It beat any drive-in movie for live action and, if it hadn't been so dangerous, it might have been a

situation comedy.

Just prior to Thanksgiving, a major battle broke out in the central highland area around Dak To. Reports called it the heaviest fighting of the war, a major NVA offensive with all types of new weapons reported in use. There was speculation that new 122mm rockets were being used for the first time and we were called to identify a round that had impacted but failed to explode. We considered it prudent to carry weapons and wear helmets. I had an M2 carbine that would not remain in the full auto position (as I discovered once we were underway). With string I tied the switch forward.

When we arrived at Dak To, everyone was firing so much, the artillery was burning up one tube a day. It took Ordnance four hours to change a tube and they were working around the clock. We located the HQ and were escorted to where the round had landed. It had penetrated at an angle to a depth of about 12 feet. From the size of the hole and the rifling marks embedded in the sand, we figured it was a 75mm recoilless rifle round and advised the troops of this. We found an engineer with a bulldozer and had him dig a large trench for us. With each pass, we went down to check until we finally found the dud shell. When the bulldozer operator saw what he had been digging for, he nearly passed out. As we suspected, it was a 75mm shell. Since there was no danger of it going off, we carried it down to headquarters to show them. I became angry when they did not believe me and was determined to take it down and perhaps scare some clerk. We arrived there, scared everyone, and had to let the EOD take it out for destruction. Our work completed, we now had to find our way out of there. That day, the Public Information Officer was filming "A Day in the Life of a Three-Star General." My NCO, an expert at scrounging rides, asked the General's pilot if we could ride back to Nha Trang with him. When told that he was flying the General, the NCO said he wasn't proud and would ride with anyone. The pilot, a Major, stood dumbfounded. We finally managed to catch a ride on an Air Force gasoline tanker headed to Saigon.

By Thanksgiving, we were back in Nha Trang and my two NCO's got us invited to the engineer unit for Thanksgiving dinner, a pleasant interlude in our routine. I had been told I would remain in Nha Trang and found this a good time to make contacts in the area.

Our villa was filling up with people. Our villa poppasan (who did the wash) was using soap faster than ever — it was hard to keep him supplied. I wrote home for soap powder, others wrote home for onion soup.

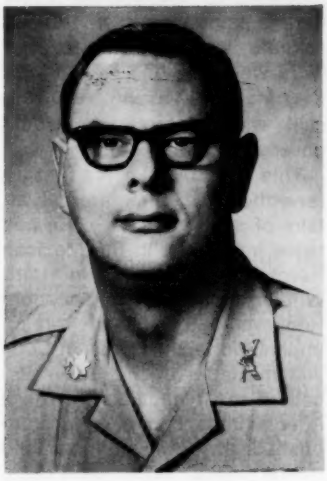
Our next major trip was by road to the town of Ninh Hoa where the Korean White Horse Division had its headquarters. We were going to see a lieutenant (their technical intelligence officer) with whom we had worked in Nha Trang. The trip was 32 km north on Highway QL 1, the main north — south road in Vietnam (from Saigon to Hanoi). It would make a beautiful drive for a tourist, in peacetime. It offered hazards in war. Along the road, we passed the Vietnamese Army NCO Academy and the Korean supply system base. We passed a crew of Vietnamese, in the traditional black pajamas, digging holes in the road. It looked like a VC minelaying party installing boobytraps but I suppose they were simply a road repair crew. After three months in the country, I was getting suspicious of every Oriental.

We ate dinner at the Korean mess hall and the lieutenant presented me with a doll he had won on a Korean radio quiz show and some captured VC checks used to pay people for stolen property. The most impressive facet of the Korean operation was the high degree of cleanliness. Everything sparkled and there was no trash about. I wished we could keep our compounds as clean.

Back at Nha Trang, our replacement jeep had not arrived. I made plans to go to Saigon to check on it. (I had needed an excuse to get out for a few days — this was it.) I enjoyed the job — I could pick up and take off when I wanted to. I located a jeep and made arrangements to have it flown to Nha Trang. Arriving there, I received many packages, presents from home. It was the 20th of December, too late to send presents home. For decorations, we had telephone wire wrapped around the power cable which was held up by other telephone wires strung with Christmas cards. Some places had artificial trees and some had real Christmas trees. Lights were strung and the Psychological Warfare personnel flew overhead with a loudspeaker plane playing Christmas carols.

The big event of the week was a floor show at the air base called the "Australian Kittens." It consisted of four chorus girls, one female singer, one comedienne and one Australian TV star. The girls were beautiful and I decided to one day take up residence in Australia. I spent Christmas Day in the villa, writing letters and doing some wood carving with the new woodcarving set I had received.

(To be continued next issue.)



MAJ William L. Howard

Major Howard is a graduate of the Citadel, Charleston, SC. He was an Ordnance Officer assigned to the Permissive Action Link Detachment in Permasens, Germany. He was transferred to France where he wrote the official history of the "Eviction of the United States Army from France." After returning to the US, he entered the MI and was assigned to CMEC, Vietnam. He returned to the US as a courier and was assigned to Fort Polk, LA. After being refused an RA, he left active duty and joined the reserves. He has completed Phase IV of Command and General Staff and was selected Outstanding Officer of the Central Florida area. During summer months on Active Duty, he usually instructs at the Armor Officers Advanced Course. He is presently working on a second undergraduate degree in Engineering Technology, Computer Science and Management, and is enrolled in C&GS at the USAR School.

R. M. Kegresse

Before coming to USAICS in 1973, Ms Kegresse was the writer/editor of the Combat Surveillance and Electronic Warfare School Daily Bulletin, Fort Huachuca (CSEWS). When TRADOC tasked the Intel School to implement the Training Aids Services Office, Ms Kegresse was asked to plan a newsletter to inform the Reserve units of Arizona on TRADOC policies, training aids, Training Extension Courses, etc. The Arizona TASOGRAM was published on a bimonthly basis.

Ms Kegresse served as the Assistant Editor of Military Intelligence Magazine from April through October 1978. Her editorial abilities and extraordinary dedication to her job greatly contributed to our last three issues of 1978. Ms Kegresse is now assigned to Facilities Engineers, Fort Huachuca.

professional reader

The Midnight War

by Richard Goldhurst, McGraw-Hill Book Company, 1978, 288 pages, $14.95.

Goldhurst gives a well-documented account of an American world involvement unknown to many — the intervention in Russia in the closing months of World War I. Two months prior to the armistice on the Western Front, Woodrow Wilson sent five thousand American soldiers to Archangel and another eight thousand to Vladivostok. There were many reasons why these soldiers went to Russia, but there was only one reason why they stayed — to intervene in a civil war to see who would govern the new Russia.

This was not Wilson's first intervention into the internal affairs of another country. He had twice intervened in the Mexican Revolution as well as in Haiti. William McKinley and Theodore Roosevelt had also made foreign interventions, the former in Cuba and the latter in the Boxer Rebellion in China. Each of these interventions had been accomplished at grave political and military risks. Yet in each case, the intervention accomplished what it set out to do. The Russian intervention failed for a variety of reasons, the most important of which was that the Bolsheviks fought to bring about its collapse. It also failed because it was conceived in panic. The Allies had won a war against Germany, but they had devastated their manhood and virtually bankrupted their treasuries. They saw their victory being menaced by the wicked Bolsheviks.

In re-creating this tragic intervention into the politics of Russia and its territory, Goldhurst has uncovered previously unpublished material, including diaries of the men of the Czech Legion, who in leaving the Eastern Front after the collapse of the Russian Army managed to capture almost the entire trans-Siberian railway.

Because of the success of the Czech Legion, and because of self-interest, England and France (with an assist from ethnic-oriented American politicians) persuaded Wilson to send troops to Russia.

I recommend this book for the serious student of military history as well as for the casual reader. But those who read my review, must read Goldhurst and decide for themselves.

MAJ Reginald H. Turner
DTD, USAICS

AIRBORNE AT WAR

by Napier Crookenden Charles Scribner's Sons, New York, 1978, 144 Pages, 200 Photographs, $14.95

LTG Sir Napier Crookenden examines airborne operations of Germany, his own Great Britain, and the United States, three nations that used them most often and effectively during World War II. The author has included an extensive compilation of photographs that complements his exhaustive research of lesser-known operations of Eben Emael, Crete, Corregidor and The Rhine that the book treats. The Rhine portion offers the most personal reflections, as LTC Crookenden and the battalion he commanded were involved in that jump. The work contains momentary accounts almost down to the man of each operation and is very interestingly done. *Airborne At War* is a must for all who were even remotely connected with any of the operations and is highly recommended for students of airborne operations.

CPT. Steve Garrett
Topstar

NEW PERSPECTIVE

by

LTC Stan Lee T. Fulcher

Senior officers and planners in Military Intelligence need to question the current scope and emphasis of intelligence training and military training in general. Several shortcomings are evident, but two are especially alarming:

1. That concentration on the "European scenario" has led us to lose sight of other important missions; and

2. That a growing preoccupation with technology and hardware has led to a de-emphasis on human intelligence and has jeopardized the role of military intelligence in the national intelligence community.

This has come about because the Vietnam War and the perceived abuses uncovered in the intelligence field have cast doubts on the abilities and motives of the military and those of US intelligence agencies. Military intelligence has suffered from both of these blows and we have not recovered.

Although the consequences of war in Europe are grave, there is less chance of such a war than of war in the Third World or the Mid-East. Our growing dependence on resources from abroad make such wars a greater threat to our well-being. To effectively guard US interests abroad, the Army must be able to respond to any level of tension or conflict, help friendly governments improve their military capabilities and aid them in repelling external or internal aggressors, or if necessary, to intervene directly. However distasteful such actions may be in the light of the Vietnam debacle, the decision to undertake them belongs to civilian policymakers. If we have no such capability, their options are severely limited. The Combat commanders of the 1960's are still with us: we can still make use of their valuable experience. However painful it may be to recognize our mistakes, we must do so, and teach lessons learned to our junior officers. As much as possible, these lessons must affect the approach and philosophy of all US military doctrine and training.

The officers of friendly armies who attend our service schools are as valuable to us as to their own countries. They should be given special attention to ensure that the benefits they derive and the inputs they can provide are maximized. Their prestige and knowledge must be respected, for they are the best their countries can offer, and will someday occupy important places in their armies and governments. They must be shown that the US Army understands their needs and has the will and expertise to help them in any way possible. Good personal relationships are as important to our position abroad as arms sales, and can help to ensure that friendly nations will remain friendly for years to come.

Another shortcoming in our approach to military intelligence is in our preoccupation with hardware and electronics at the expense of traditional human intelligence-type approaches. While electronic warfare is less controversial than "cloak and dagger" work, one cannot be allowed to displace the other. Despite the disfavor which intelligence organs have lately faced, we must not neglect our capability for covert operations and gathering "soft" data. To do so is to ignore our duties as an integral part of the US intelligence community. Army intelligence must not only acquire targets, but must be able to think as the enemy thinks and predict his actions and to put this knowledge in the hands of the combat commander. To fulfill these roles, officers must be trained on a broader base and in greater depth than ever before, with well-developed individual specialties as well as generalized knowledge.

The Army as a whole is not known for utilizing individual talents to the best advantage. Military folklore abounds with tales of humorously placed draftees. Officers are sometimes penalized for broadening their experience outside their MOS. Evaluators in the various branches tend to view time spent in branch-immaterial jobs as time wasted rather than as useful experience. Well-rounded individuals are perhaps more important to the Military Intelligence branch than to any other. Assignments outside and inside the branch contribute to this rounding process. After the first five or six years, in which attrition is highest, interviews by highly competent personnel experts should be allowed to influence the specialties into which officers will be directed. In this way, the individual's talents can be better utilized, and his morale and effectiveness will be greater.

In the future, the US Army must be ready to meet and defeat more varied and intense threats than ever before. To serve that Army, tomorrow's intelligence officers must be expert in many areas. They must be trained in all the technology at their disposal; in strategy and tactics at all levels; in all political, economic, sociological and psychological aspects of countries where the US may be involved in conflict. This will not be achieved until the traumas of the recent past are forgotten and the lessons of recent history are analyzed and digested.

LTC Fulcher is currently the commander of the 2nd School Battalion, USAICS. He holds a BA degree in Psychology from Creighton University and an MA in International Relations from USC. He was most recently assigned as Plans and Program Officer, US Military Group El Salvador.

STRATEGIC THREATS TO CHINA IN THE 1980'S

by
CPT John F. Corbett, Jr.

In January of this year, the United States and the People's Republic of China established diplomatic relations. In February, the People's Republic of China invaded the Socialist Republic of Vietnam. The dramatic changes in China's domestic and foreign policy in the post-Mao era warrant the serious consideration of anyone concerned with her evolving role as a world power and in particular, the intelligence specialist.

—Editor

The Chairman is dead, long live the Chairman!

It has been more than two years since Chairman Mao Tse-tung died yet the process of succession in the People's Republic of China (PRC) continues. As 1978 drew to a close, news reports indicated a struggle among Mao's chosen successor, Chairman Hua Kuo-feng (Hua Guofeng), Vice Chairman Teng Hsiao-ping (Deng Xiaoping), a protege of Chou En-lai (Zhou Enlai) architect of China's current modernization program and Wang Tung-hsing (Wang Dongxing), representing the radical element loyal to Maoist ideology.

This struggle is related to other issues concerning China at this time: its reevaluation of Maoism and ideology; methods for modernization; the changing nature of its foreign relations stance; and modernization of the military, to name a few.

China, in short, is undergoing a period of dramatic change in ideology and development. Despite differing methodologies, the leadership of China is united in its effort to attain "four modernizations" in the areas of agriculture, industry, national defense and science and technology. Their goal of modernization by the year 2000 has been consistently borne out, most recently in the 3rd Plenary Session of the 11th Party Central Committee held in December 1978.

While the task of analyzing and presenting these developments is beyond the scope of this article, it is important to understand the setting in which they occur. In this article, I will examine the external threats to China's security, and thus, her modernization program.

The adage "yesterday's enemy is tomorrow's friend" is especially appropriate to China today. As former enemies become allies (and vice versa), the threats facing China change. In this article, I will present these potential adversaries on a country by country basis while attempting to forecast the roles they might play in the 1980's.

The Union of Soviet Socialist Republics (USSR)

The Soviet Union poses the greatest threat to China's security in the coming decade. Relations between the Soviet Union and China have steadily deteriorated since the first manifestations of the Sino-Soviet split in the late 1950's. The split initially took the form of political, ideological and economic differences but military differences later developed. These resulted in the refusal of the Soviet Union to lend the support of its nuclear umbrella to China (and against the US) in both the 1954 Taiwan Straits and 1958 Quemoy Crises.[1]

The split presented the Chinese with a need to establish a defense strategy condition by both the lack of any nuclear deterrent capability and by a massive conventional military force with weapons and equipment rapidly becoming obsolete. The Chinese subsequently adopted a posture of "self-reliance" which revalidated the pre-1949 strategy of people's war which is defined by the Defense Intelligence Agency as:

> "That doctrine for the defense of China against various types of warfare ranging from a surprise long range nuclear strike combined with a massive ground invasion to a conventional ground attack with limited objectives. In

people's war, the army and paramilitary forces, supported by the populace, would conduct a protracted war against an invader. Initially the Chinese main forces, using conventional tactics, would carry out a strategic withdrawal supported by guerrilla-type operations until the invading forces were overextended and dispersed. When this occurred, overwhelming Chinese forces would be concentrated to annihilate the enemy forces in detail."[2]

Essentially, this is a defensive strategy dictated by the necessity to fend off a threat by a vastly superior military force.

As China has responded to Sino-Soviet difficulties with ever-increasing emphasis on its defensive posture, these frictions have necessarily increased. With modernization of her military forces, her potential strength will further encourage Soviet fears. In other words, the initial Sino-Soviet split in the 1950's has necessitated the modernization of the Chinese armed forces, thus even further escalating tensions.

The Soviet Union changed quickly in the 1950's from an ideological adversary to a potentially strategic one. This strategic threat surfaced with armed border clashes along the Ussuri River in 1968. At that time, the Soviet Union had fifteen divisions stationed along the Chinese border. In 1972, there were 45.[3] This figure stabilized at approximately 44 (to include six tank divisions) in 1978.[4] It is generally agreed that the divisions consist of a mix of readiness category I, II and III units, with the exact composition changing to reflect the political situation. While many of these divisions are not maintained at full strength (as of late 1978), the Soviets are allocating 10 percent of their military budget to these border districts or roughly double the allocation of any other Soviet command. At the same time, the border divisions, especially those located near Khabarovsk, are being re-equipped and reorganized with T-72 tanks, BMP armored personnel carriers and new self-propelled artillery. This came soon after deliveries of new equipment to East Germany, the normal priority area.[5] These ground forces are augmented by an air force with 1,200-1,400 aircraft and an estimated 2,500 nuclear warheads at the disposal of the Soviet Far East Command.[6]

The Chinese awareness of the Soviet threat is shown in continuous propaganda against the Soviets in the press, but more significantly by the reference to the Soviet Union in Article 19 of the Chinese Constitution as a threat against the state.[7] This ranks the USSR as the primary threat to the PRC while the 1975 Constitution (the first to list the USSR as an enemy), ranked the USSR behind the US.[8] As early as 1973, it was written that ". . .the PRC . . .sees the Soviet Union as the prime threat to its physical security. . ."[9]

Ideological disputes over the interpertation of Marxist-Leninist thought combined with historical competition between the nations to create the intense mutual distrust characterizing Sino-Soviet relations today. The Soviet Union has several options available, of which the most useable is the exertion of extensive diplomatic pressure in opposition to Chinese policies. Other alternatives range from the support of third nations in disputes against China to conventional, limited nuclear or full nuclear war or any combination of these options.

United States of America

The US is no longer considered the number one threat, but rather as a potential long term threat to the Chinese Communist system. China regards the United States as:

> . . .a highly advanced capitalist power, impelled towards aggressive behaviour because of the expansionist ambitions of its powerful monopoly groups, weakened by internal problems and incapable of waging sustained armed conflicts and, for the present, more intent on exploiting the economic and military weaknesses of the non-Communist developing countries than on attempting direct aggression against China.[11]

The US withdrawal from Vietnam combined with its overall reduction of military forces on the Asian mainland leaves the US treaty for the defense of Taiwan as the primary US military threat to the PRC. Until December, the treaty had been the main obstacle to the normalization of relations between the US and the PRC. The Chinese set three conditions which President Carter met when he announced the establishment of diplomatic relations with the PRC. These were that ". . .the United States must withdraw all of its forces from the island of Taiwan, end diplomatic recognition of the Republic of China, and dissolve the Mutual Defense Treaty that commits the United States to the defense of Taiwan."[12]

The difference between the immediate Soviet threat and the remote US threat becomes apparent in Sino-US detente. The economic and political benefits to the PRC through normalization of relations are immense. Furthermore, normalization strategically counters the Soviet threat. Normalization is sufficiently critical to the PRC that it will accept US expressed, although not formalized, intentions to guarantee Taiwan's independent existance after the lapse of the 1954 Mutual Defense Treaty between the US and the Republic of China. At the same time, this political understanding does not close out the eventual use of force by the PRC to bring about the reunification with China.[13]

The US serves two other important functions to the PRC.

First, US policy and posture is expected to assist in maintaining the status quo as regards Taiwan until the PRC is in a position to dictate otherwise. Secondly, the PRC recognizes its own military weaknesses beyond its immediate borders and appreciates the US presence in Asia. While in the past it supported the North Vietnamese war effort and subsequent withdrawal of US forces from Southeast Asia, China does not desire a total US withdrawal from Asia because US presence provides a balance of power in Asia to counter Soviet expansion. US military power also precludes the need for Japan to develop a nuclear capability and remilitarize. These have been long term Chinese fears although the PRC's attitude towards Japan's rearming appears to be changing. Additionally, US forces stabilize the Korean situation, helping to prevent a military clash that might involve China in a new conflict possibly leading to uninvited Soviet intervention in Chinese territory or, as a minimum, the expensive diversion of scarce resources from the sphere of economic development and modernization. Thus, it is better for the Chinese to seek good relations with the US while deemphasizing ideological differences.

The Socialist Republic of Vietnam

In a *People's Daily* editorial, China has charged that Moscow, through the manipulation of Vietnam, has ". . .gone out of its way to poison China's relations with the Southeast Asian nations. . ." while seeking ". . .to woo these countries with proposals for a 'zone of peace' in Southeast Asia, which are actually a revamped version of the notorious old proposal for an 'Asian collective security.' "[14]

The immediate strategic threat of 1978 was Vietnam. China gave substantial support to North Vietnam until soon after the 1975 defeat of South Vietnam when historical Sino-Vietnamese border disputes reemerged in the form of armed frontier clashes. The situation became tense in the middle of 1978 with "feuding over the alleged abuse of Vietnam's ethnic Chinese population. China claims 160,000 ethnic Chinese fled from Vietnam to China this year before the dispute led to a closing of the border."[15] China has recently charged Vietnam with border violations and provocative activities creating military tension and that "Hanoi's infringements of Chinese sovereignty and aggravation of tension . . . were instigated and backed by the Soviet Union."[16]

Vietnam's weapons capability includes equipment supplied it to defeat South Vietnam, the vast amount of US equipment captured in 1975, and the large resupply from Moscow that took place in mid-1978 with assurances of "continual and large replenishments from the Soviet arsenal."[17] Recent reports include the arrival of the MiG 23's and possible Soviet pilots in this aid.[18]

The Soviet support of Vietnam's anti-China stance and the apparent Soviet attempt to establish Vietnam as a proxy for its Asian policies, make Vietnam an immediate military threat to Chinese security. Vietnam's own fear of a Chinese fifth column compounded this threat and led to, their subsequent formation of internal policies contributing to the refugee flow. In February of 1979, these tensions, combined with the Vietnamese invasion of Kampuchea (Cambodia) have resulted in the Chinese invasion of Vietnam.

Republic of India

Vietnam's emergence as an area of potential border conflict replaces India as a main point of potential friction. The PRC's relationship with India has varied from bad to worse since the establishment of the PRC.

Historically, there are two sources of contention between the countries. The first, results from the nations' ethnocentric superiority complexes and has been described as follows: "China, 'the centre of the world,' speaks with the urban disdain of its ancient secular civilization; India talks from the 'higher morality' of its old religious culture."[19] The second is a carry-over from India's colonial days when the British removed Tibet from its traditional ties to China and established the McMahon Line, which the PRC does not accept as the Sino-India border. A brief chronology will show the tensions of recent PRC-Indian relations:

1954-1959:	Armed border clashes
1959:	PRC rejected 1914 McMahon Line
1959-1962:	PRC put down Tibet revolt allegedly supported by India
1962:	Sino-Indian war
1963:	Soviet arms aid to India begins
1965:	PRC supported Pakistan in war with India
1971:	PRC supported Pakistan in Bangladesh War
1971:	Soviet — Indian twenty year friendship treaty
1972-1978:	Continued Soviet aid to India

Today, India is moving to dispel the past twenty-four years' tension with the February 1979 visit by Indian Foreign Minister Atal Behari Vajpayee to China. Vajpayee's visit sought to initiate "stage-by-stage diplomacy in which trade, cultural contracts and communications would be developed, shelving the almost intractable border problem."[21]

While welcoming these overtures, China still has reason to view recent developments with caution. The Janata Party government which defeated Indira Ghandi's Congress Party in 1976 is experiencing opposition from the Congress Party on two counts: first, it faces charges that it is in fact giving away the disputed land and second, that the Government "is preparing the nation for a sellout to China."[22]

Additionally, a statement in July 1978 by the Indian Defense MInister Jagjivan Ram implied that relations with the USSR would not be affected by im-

proved Indian relations with China. This is supported by reports that India will receive 70 T-72 tanks in early 1979. This will be the first public sale of the T-72 outside the Warsaw Pact.[23] The basic issue remains the disputed territory, especially between the Karakoram Pass and the Pamir Mountains which is "strategically most vulnerable from the Soviet Union as well as India."[24] This serves to highlight the Chinese fear of encirclement and India's potential as a second front in combination with a Soviet attack.

While India is not a crisis area as is Vietnam, its ties with the USSR remain the chief cause of tense relations. While relations are improving, a reemergence of Indira Ghandi's Congress Party with its pro-Soviet, anti-China attitudes, and India's expanding military-industrial capabilities could quickly result in armed conflict.

Japan

The cornerstone of the current Sino-Japanese relationship is the recently signed and ratified Treaty of Peace and Friendship Between the People's Republic of China and Japan.[25] This treaty formally concluded a "state of war" that has existed off and on since the end of the nineteenth century. Although Japan has not been able to actually threaten the PRC since World War II, it remained firmly in the US fold as the keystone for US Asian policy and strategic planning.

Our Asian policy was clearly anti-Chinese until the early 1970's. Accordingly, China saw Japan as a facilitator of hostile US policy with long-term fear of a reemerging Japanese nationalism combined with a possible nuclear capability. This fear was aggravated by potential relationships between Japan and the USSR which would cause Japan to become economically dependent on the Soviet Union for raw materials.

China resolved this through economic and political ties. China and Japan signed an eight year trade agreement on 16 February 1978, calling for $20 billion in two-way trade from 1978 through 1985. China would supply raw materials such as oil and coal in return for industrial plants and technology from Japan.[26] This mutually beneficial economic relationship also serves to lessen Japanese dependence on Siberian resources.

Combined with the peace treaty, this economic package pulls Japan toward China and away from the Soviet Union. This is especially true in light of Article Two of the peace treaty which states in part that neither Japan nor the PRC

> . . .should seek hegemony in the Asia-Pacific region or in any other region and that each is opposed to efforts by any other country or groups of countries to establish such hegemony.[27]

Both the PRC and the USSR interpret this article as directed against the Soviet expansion in Asia, although Japan denies any anti-Soviet intent.[28]

Simply put, Japan poses no threat to China in the 1980's. Greater Chinese understanding of the nature of Japanese pacifism has further led to PRC encouragement that Japan beef up its Self Defense Forces and permit continued US military presence to deter additional Soviet increases of military strength in Northeast Asia.[29]

Conclusion

As with most nations, periods of internal change and reevaluation of national direction have carry-over effects in the area of that nation's foreign relations. Thus, recent enemies are becoming "friends of China." Japan and the US offer two prime examples of this. Nations more recently described as friends, including the Soviet Union and Vietnam, are now clearly considered threats. International relationships cannot be considered in overly simplified terms, however. For example, India, remaining true to its avowed neutrality, is a "friendly threat."

One must separate propaganda from the issues, and clearly the Chinese see the Soviet Union as their principal threat for its direct and indirect involvement in Asian affairs. Thus, much of China's foreign policy revolves around countering an apparent Soviet attempt at encirclement.

The monumental social, political, and economic development process that had been guided for so long by Mao Tse-tung continues. China will need to devote its maximum energies and resources to accomplish this goal. It cannot afford to allow hostilities to divert from this modernization but, if faced with a blatant threat to its interest, with no diplomatic alternative, China can be expected to react firmly.

Footnotes

1. P. R. Chari, "China's Nuclear Posture: An Evaluation," *Asian Survey*, 18 (August 1978), 817.
2. Defense Intelligence Agency, *Handbook on the Chinese Armed Forces* (Washington: Department of Defense, 1976), pp. 1-7.
3. Chari, p. 818.
4. *The Military Balance 1978-1979* (London: International Institute for Strategic Studies, 1978), p. 9.
5. Russell Spurr, "Building Up More Border Muscle," *Far Eastern Economic Review*, 15 September 1978, p. 38.
6. *Asia 1978 Yearbook* (Hong Kong: Far Eastern Economic Review, Ltd., 1978), p. 35.
7. "The Constitution of the People's Republic of China," *Peking Review*, 17 March 1978, p.9.
8. "The Constitution of the People's Republic of China," *Peking Review*, 24 January 1975, p.15.
9. Angus M. Fraser, *The People's Liberation Army* (New York: Crane, Russak and Company, 1973), p.43.
10. R. G. Boyd, *China's Military Power* (Ottawa: Department of National Defense, 1977), p.35.
11. Boyd, p.37.
12. Chalmers Johnson, "The New Trust in China's Foreign Policy," *Foreign Affairs*, (Fall 1978), 134.
13. This is the author's analysis. Positions both supporting and refuting the final disposition of this issue are readily available.
14. "A New Move in the Kremlin's Global Strategy," *Peking Review*, 29 September 1978, p.13.
15. "China Walks Out as Kosygin Salutes Viets," *The Arizona Daily Star*, 5 November 1978, p.10A.
16. "How Much Further Will Hanoi Go?" *Peking Review*, 3 November 1978, p.25. See also: "'Holy Alliance' of Big and Small Hegemonists."

Peking Review, 24 November 1978, pp.22-24.
17. *Ibid.*
18. Russell Spurr, "Preparing for the Final Round?" *Far Eastern Economic Review*, 6 October 1978, p. 20.
19. Denzil Peiris, "Roadblock on the Road to Peace," *Far Eastern Economic Review*, 1 September 1978, p. 20.
20. Richard F. Nyrop et al., *Area Handbook for India* (Washington: U.S. Government Printing Office, 1975), pp. 375-382.
21. Deiris, p. 18.
22. A. Hariharan, "Trying to Heal Old Wounds," *Far Eastern Economic Review*, 11 August 1978, p. 18.
23. "India-Soviet Arms Deal," *Far Eastern Economic Review*, 29 September 1978, p. 5.
24. Peiris, pp. 18-20.
25. "China and Japan Sign Peace and Friendship Treaty," *Peking Review*, 18 August 1978, pp. 6-8. See also: "China-Japan Treaty of Peace and Friendship Goes into Effect," *Peking Review*, 27 October 1978, pp. 3-5.
26. Tracy Dahlby, "Peking Opens the Door to Japan," *Far Eastern Economic Review*, 3 March 1978, p. 40. See also: "Sino-Japanese Long-Term Trade Agreement," *Peking Review*, 24 February 1978, p. 4.
27. "China and Japan Sign Peace and Friendship Treaty," *Peking Review*, 18 August 1978, p. 8.
28. Susumu Awanohara, "Caught Between Two Giants at Odds With One Another," *Far Eastern Economic Review*, 6 October 1978, p. 66.
29. Bernard Weinraub, "Japan is Spurring Defense Programs and Strengthening Military Links With the West," *New York Times*, 19 November 1978, p. 18.

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Cpt Corbett is a 1972 graduate of the US Military Academy. He holds Masters degrees in Political Science and Asian Studies from the University of Hawaii. He has attended the Infantry Officer Basic Course, the MI Officer Advance Course and the Foreign Area Officer Course. He was most recently assigned as S2, 2nd/Bn/Abn, 504th Inf, 82nd Division.

"BONEYARD NOSTALGIA"

by CPT Ted Girouard

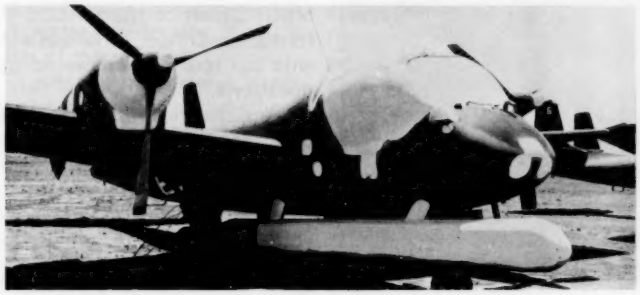
Where can you find more than 60 OV-1 Mohawks, combat service veterans just waiting to tell their own "war stories?" At MASDC, the "Boneyard."

The Military Aircraft Storage and Disposition Center located at Davis-Monthan Air Force Base in Tucson, Arizona, is unique in the world. It stores and maintains more than 4,200 military aircraft from active, guard and reserve units of the Army, Navy, Air Force, Marine Corps and Coast Guard. From this "aircraft bank," regular withdrawals are made of parts needed to maintain aircraft in active service and of complete aircraft themselves to meet military demands.

This capability saves the requesting unit and the government time and saves the services, DOD and taxpayers millions of dollars annually.

MASDC is a fascinating activity. Here, military aircraft are "retired" at the end of normal service lives to enjoy ideal Arizona weather in storage. The meager rainfall, 10-20 percent humidity and alkaline soil cause minimal aircraft corrosion and deterioration. The extremely hard caliche soil makes it possible to park aircraft right on the ground without concrete parking pads.

An arriving aircraft first goes through a preservation process. Items previously identified by the owning service are removed, all armament is disarmed and removed and classified and pilferable items are removed and secured. The aircraft is defueled and then filled and drained with a lightweight oil to preserve the fuel system. Hydraulic systems and tires are serviced to normal standards. The aircraft is then sent to be sprayed. Its upper half



is taped and the engines' intakes and exhausts are covered. Any gaps or cracks are also taped before the aircraft receives two coats of a special compound called "Spraylat."

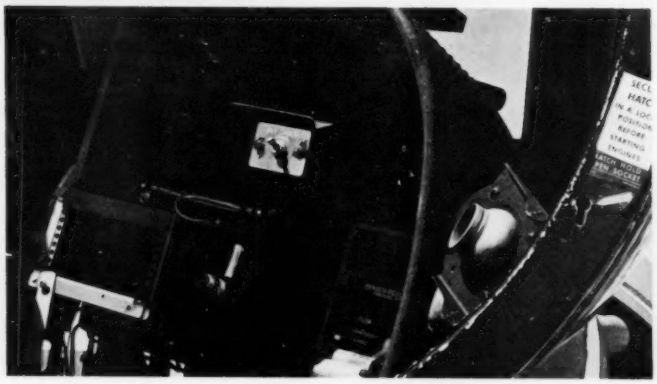
"Spraylat" white vinyl plastic has two main functions. First, it keeps water and dust out, preventing wind and duststorms from damaging fiberglass radomes, fabric control surfaces and aircraft canopies and windows. Second, "Spraylat" offers temperature control. Temperatures in the Southwest often exceed 100° and the inside temperatures of unprotected aircraft could easily reach 200°. The white coating actually keeps the inside temperature within about 5° of the outside temperature, thus prolonging the storage/service life of the aircraft. Additionally, only the upper half of the aircraft is covered with the paper, tape and "Spraylat," thus allowing air circulation throughout the underside of the aircraft to prevent condensation and corrosion.

Aircraft of all types and histories are stored within MASDC, including special birds like the original B-52 mother-ship for the X-15, the original prototype Boeing 707 and (most of all) the little orange "Mattel Messerschmidts" many Army aviators first flew back at "Mother Rucker." But of primary interest to the Imagery

Acquisition Division were those OV-1 Mohawks. Most are capable of being pressed into active service. Prior to the deployment of the final OV-1D's to the last of the active Army units, numerous requests for badly needed B model parts were filled from the MASDC yard. But it was most intriguing visiting the "Boneyard" to read tail numbers, unit emblems and designations, and in a few cases, read the names of individuals that served with these aircraft.

Virtually every unit is represented. Mr. Burt Portley took over sixty-five pictures of these old birds, recording things like "Day Tripper," 73rd on an old A model; a serial number 59-2806, an A model with the old Air Force paint scheme and white star on blue field insignia. We saw names like SP5 Paul Sutherland, B. Williams, PeeWee Peters, and SP4 Stroup. And we found OV-1B serial number 62-5902, the old dual ship from the 6th AVN PLT, from Korea, lying there in the field. There were aircraft from Alaska, with white and red paint, birds from the Oregon Guard Minuteman Seal and ones with the familiar GA-NG. We really enjoyed our tour, thanks especially to 2LT Triplett and MSGT Stuart of the MASDC Information Office, who assisted with our tour and answered our questions.

We hope these pictures bring back cherished memories and that some of you will write us an interesting "WAR STORY" about some of the birds and names. If you have a favorite aircraft tail number and would like a picture of the bird as she sits today, let us know, and we will see if we can locate her in the "Yard". In any case, we hope these pictures stir some memories and help you remember the people you knew back when. Hope you enjoyed our trip into the past at MASDC as much as we did.



The Role of Reserve Intelligence Personnel

A little known or accepted fact in the United States today is the increasingly important role of the Reserve component as an integral part of the cutting edge of our armed forces. In recent years, the size of the active component has decreased while the defense needs of our country have increased in terms of threat and requirements. As a result, the development of the "total Army" from concept into policy accomplishes maximum integration of Active and Reserve components to provide an effective defense capability at acceptable cost. Over 50 percent of the Army force combat assets are in the Reserve components, as are approximately 70 percent of the combat service support elements. This indicates an unprecedented reliance on the Army Reserve today for our national security.

Considering the fact that tactical intelligence is a major force multiplier, it is important to know what is being done within the Army to achieve the total force objectives for tactical intelligence. When Major General E. R. Thompson became the current Assistant Chief of Staff for Intelligence at DA, he developed a number of key objectives. One of these states: "Work with ODCSOPS and FORSCOM to review the wartime missions, peacetime assignments, or affiliations, organization, and utilization and training of Reserve components intelligence units at the strategic and tactical levels. Stress increased participation of RC units and individuals in active component exercises, to include OCONUS training when eligible."

On the surface, this seems an obvious requirement and one may ask why it hasn't been accomplished in the past. For years, the Active Army has talked about the Reserves and the Reserves have talked about themselves but much of the talk has been rhetoric. With national defense requirements increasing and resources decreasing, the Active Army has received the dollars, and very little of the pie has been shared with the Reserves. The difference today is that Army objectives are impossible to achieve without the active and dynamic participation of the Reserve component.

The total Army goal is to achieve an acceptable level of readiness and to prepare for rapid transition to combat, fully capable of performing a wartime mission. The goal of the Army intelligence system is to provide ground commanders with sufficient warning of hostilities, knowledge of potential enemies and areas of deployment, and that continuing intelligence support necessary to win the first battle of the next war.

At present, the Reserve intelligence organization and methods of operation are inadequate to provide effective support in the event of mobilization and deployment. The shortage of equipment in most Reserve signals intelligence (SIGINT)/electronic warfare (EW) units inhibits training and keeps all units at unacceptable readiness levels. The readiness of other intelligence units is generally better but still below acceptable standards. Also impacting on readiness is the level of personnel fill. Problems in recruitment, retention and training dominate the time of all Reserve intelligence unit commanders in the field. It is beyond their capability to improve without a major new initiative at Headquarters, DA. This initiative is now reality.

The Intelligence Organization and Stationing Study (IOSS) recommended the integration of traditional MI, SIGINT/EW and special security officer assets into intelligence units capable of providing all-source support to commanders at corps and division. DA is in the process of reorganizing and equipping the active component so that each division has an MI battalion and each corps an MI Group, both capable of providing all-source, ground and air collection, processing and reporting using a new generation of equipment. This program will be completed by 1985.

The President and the Congress have recognized the need to equip and reorganize the Reserve component along with the Active Army. Plans are now being formulated at the highest levels to implement this new concept within the Reserves from the point of view of personnel, equipment and organization. The Assistant Secretary of the Army for Manpower and Reserve Affairs has been briefed and supports these plans. The Special Assistant to the Deputy Secretary of Defense for MRA&L has stated that not only is this action necessary, but it must be completed by FY82 within the Reserve component. Critical to understanding that the Army is serious about this is the knowledge that these requirements will be articulated and will be forwarded to the Congress for review and approval. Tasks have already been levied throughout the Army to ensure compliance with the guidance from the Army secretariat.

At a conference on intelligence training held by HQDA in March 1978, the US Army Intelligence Center and School reported significant progress in supporting RC training. It has established an Office of Reserve Training to coordinate RC support, especially in updating and improving Intelligence Training Army Area School instructional programs and lesson plans. A new program will reduce total training time for MOS qualification and will qualify twice as many personnel with significant savings.

These actions require that certain procedures pertinent to Reserve intelligence units and personnel be revised. To accomplish this, AR 140-192 has been rewritten and is now being staffed. This AR provides Army policy and guidance relative to

(Continued on page 54)

Announcing:

The Military Intelligence Magazine Photography Contest

Military Intelligence Magazine Photography Contest Rules

1. Photographs must be black and white, 8 by 10 inch glossy prints. Multiple submissions will be accepted.
2. Subject must relate to the civilian or military (any service) Intelligence effort (personnel, equipment or activities).
3. Subject cannot be of a classified nature.
4. All photographs become the property of Military Intelligence Magazine and may be published at the discretion of the magazine staff.
5. Name, address, caption or description must be attached to the back of each photograph (Dry mount, stamp, etc.).
6. Prizes will be awarded upon publication of the winning photographs in the July-September 1979 issue. First prize: $50.; Second prize: $25.; Third prize: $15.; Honorable Mention: First — Two-year subscription to MI Magazine, and Second — One-year subscription to MI Magazine.
7. Photographs will be judged for quality, composition and subject.
8. Submissions must be postmarked by midnight, June 30, 1979.
9. Send entries to: MI Magazine Photo Contest, P. O. Box 569, Fort Huachuca, AZ 85613.

Will you be a winner?

$ 50.00

$ 25.00

$ 15.00

(RESERVE from page 53)

intelligence organization, training, assignment, and retention.

The role of Reserve intelligence personnel is no different from their active duty counterparts. In the next few years the Reserve component will be responsible for organizing, equipping and training units with new systems, more people and significantly increased capabilities. Reserve intelligence units will also train with the Active Army in the next few years. This will require a coordinated and dedicated effort by everyone. We are pledged to the total Army concept and to making it a reality within the intelligence community.

MAJ J. Lawrence Minetree III
AV 225-2120/3369

professional reader

POLITICAL HANDBOOK OF THE WORLD 1978, edited by Arthur S. Banks. McGraw-Hill Book Company, 1978. 627 pages. $24.95

This volume is the special 50th anniversary edition of a continuing, superb research document. With a wealth of facts and figures, the book presents a detailed picture of the world political situation.

The first section, entitled World and Regional Issues, looks at the globe in terms of the critical SALT talks, mutual and balanced force reductions (MBFR) in Europe and questions of resources and energy. Western Europe, East Europe, the Middle East, Latin America, and East and Southeast Asia all receive complete, expository accounts within the book.

The largest section, entitled "Governments," will be useful to many professionals in education, business and government. Political and limited socio-economic data of 165 countries is given. For instance, the three page write-up on Bandladesh details the country's demographic profile, current political style, foreign relations, and current issues. As a final portion of each nation's sketch, there are complete lists of government officials and international organizations to which the countries belong. To provide a frame of reference as to the book's physical composition, the United States receives nine, double column pages in this oversize volumne.

Perhaps the most enlightening is the final section entitled "Intergovernmental Organizations." Can you name the four members of the Central African Customs and Economic Unit? This example was selected because it is representative of the detail found in the Banks' book.

The numerous international affiliations are interesting, because they bring together countries which are not usually linked politically. To this end, regional development banks and river commissions suggest growing international cooperation. Appendices to the volume include a chronology of major international events from 1945-1977.

The book is impressive in content and style. It will be a valuable addition to any government agency's library, or to that of a public or school library. By the way, the members of the ACEU are Cameroon, the Central African Empire, Congo (Brazzaville), and Gabon. Chad is an observer!

A. W. McMaster, III
Intell and Threat Division, TRADOC

The Lancaster at War, Mike Garbett and Brian Goulding. Charles Scribner & Sons, New York. 1971. 143 pages. B&W photos.

"Our efforts have truly been a labour of love..." say the authors in their introduction to **The Lancaster at War**, a thorough pictographical account of World War II's most successful bomber.

American readers may contest the "Lanc's" description in the above paragraph, but they cannot deny its impressive track record: 156,000 sorties in World War II, 608,612 tons of bombs dropped and almost 20 years post-war active service in the Canadian, French and Argentinian Air Forces. No other heavy bomber can claim this last longevity statistic.

The authors trace the development of the Lancaster from the first prototype "Manchester," constructed in 1939, to the mainline models produced by the A. V. Roe Aircraft Corporation.

Supplementing their text with factual accounts written by 17 former Lancaster pilots, Garbett and Goulding add an extra dimension to their work and further legitimize the scholarly nature of this "labour of love."

The stories of those involved with building, flying, repairing or loading this formidable aircraft are told in great detail, making the Lanc's story one of those unsung heroes who are responsible for ensuring the operational readiness of one of the world's greatest bombers.

The Lancaster at War, for the serious student of World War II air power or the casually interested reader, stands as a remarkable study of a remarkable aircraft.

C. B. Timmers

Burma Military Rule and the Politics of Stagnation, by Josef Silverstein. Cornell University Press. No price listed. 200 pp.

The problem with surveys is they say something about everything and nothing about something. This book is a case in point. Burma Military Rules and the Politics of Stagnation is an introductory survey reflecting the general format of an earlier anthology, Government and Politics of Southeast Asia. Regardless of the title, it is an expanded political, social, and economic survey of post World War II Burma. Silverstein spends over half the book on the pre-1962 period and the remainder covering the same themes for the period following the 1962 military coup. His is a competent, factual survey, but somehow it

fails to capture the essense of the matter at hand: the crux of the matter is all too neatly summarized on page 163 when Silverstein states:

> "The first twelve years of military rule by the socialist-soldiers saw the economy decline steadily as dogmatic pursuit of ideology displaced common sense and inexperienced administrators displaced the civilian politicians and bureaucrats. Those who have argued that the military are modernizers will find that a careful study of Burma under military rule will bring that proposition into serious question."

Yet, to the military reader, it appears that the whole concept of military rule is sidestepped. Its assumed definition, that military rule is rule by the military, is too pat and smug, for history has shown too many other cases where the military served as a means of upward mobility and innovation for the poor and middle classes in an elitist society and the greatest dogmatists ever to override common sense have been trained lawyers, doctors, and educators.

Silverstein avoids an in-depth analysis of the military as a social class, political force, or experienced bureaucracy. He fails to emphasize strongly enough the weight of external military and political threats which produced counterbalancing demands on limited resources. The scarcity of available primary sources and the reliance on published government materials and speeches is a self-admitted weakness beyond the control of the author.

The focus of American attention has shifted from Asia to Europe and Africa, but a basic knowledge of Asian politics is still a necessary tool for the military intelligence specialist, and this factual, if uninspired, volume offers a good summary of important elements of Burmese society since World War II.

CPT Diane Smith
66th MIGP

WAR ON THE MIND: The Military Uses and Abuses of Psychology

Peter Watson, Basic Books, Inc., New York, $17.50

War on the Mind is advertised by the publisher as the most comprehensive and fully documented work on the psychology of warfare ever published, a complete catalog of psychological studies. Don't believe that. The publishing firm, Basic Books, was aptly named. *War on the Mind* is a poorly edited tome of 500 pages replete with typographical errors. One error is too many in a book of this price. The writer has very briefly described over a hundred distinctly different and individually complex topics examining the use of psychology to modify military behavior. The author is both a British journalist and a clinical psychologist; the first is obvious, the latter is not. *War on the Mind* reads like the Sunday supplement. As one example, only four brief pages are devoted to the subject of atrocity research; most highly regarded sources on the subject are avoided in the discussion of that topic.

The reader should always be suspicious of any work purporting to be a scholarly text when there is no bibliography. The footnoting system is atrocious, and direct and indirect references are not always cited (re page 433 as one example). Basic Books apparently cut costs on this production by eliminating the editing process.

War on the Mind is a poorly researched and developed collection of related subject matter which reads suspiciously like a graduate paper from a school where no one fails. It is at best the notes from a pet project turned into a book. A review isn't really appropriate except that the military audience is an economic target for this book and because the book has indeed received high marks from reviewers employed by the popular weekly periodicals. You can fool some of the people some of the time; if you want to qualify, pay $17.50 for this book.

DON E. GORDON
LTC, MI

The Encyclopedia of Modern War by Roger Parkinson. Stein and Day, New York, 1977, 226 pages, $15.

Students of military history will find The Encyclopedia of Modern War (from 1793 to the present) a convenient aid to check dates, names and places as well as important weapons systems and tactical and strategia concepts of modern warfare. Though at times painfully concise, Parkinson's effective use of crossreferencing makes it possible for the reader to obtain as much elaboration on a topic as he may desire.

In his introduction, Parkinson admits to limiting himself to the most important concepts, events and personalities associated with the world's military heritage. In 226 pages, few topics receive more than one and a half columns. But his treatment of important issues and personalities is impartial and he gives equal coverage to both sides of a war, restricting himself to the facts.

By restricting his book to the written word and a handful of black and white maps, Parkinson may have lost most of the popular book market. The book lacks eye-appeal and will most likely find itself in the reference section of libraries rather than on the best-seller list. Nevertheless, The Encyclopedia of Modern War should be a welcome addition to one's military library.

MAJ Peter R. Morey

The Horse Soldier, 1776-1943, The United States Cavalryman: His Uniforms, Arms, Accurements and Equipments.
by Randy Steffen, University of Oklahoma Press, illustrated, 195 pages, 1977. $25.

The late Mr. Steffen has, in his first of four volumes on the US Cavalryman, combined the somewhat diverse skills of historian, illustrator and raconteur. Indeed, this initial offering could have been written as two equally engaging works which might have been titled: *A History of the US Cavalryman and Uniforms, Weapons and Equipment of the US Cavalryman.* Such is the depth of Mr. Steffen's research and the abundance of detail he provides the reader through his masterful drawings and paintings.

Eleven color plates and 96 black and white drawings depict the evolution of the dragoon's headgear, carbines, shoes, frock coats and so forth. Students of European military history will also note a great number of similarities between US uniforms of this period (1776-1850) and those of Great Britain, France and Prussia.

Appendices contain an illustration listing the "parts" of a horse, equipment for horses and Cavalry bugle calls (complete with sheet music for those readers who double as trumpeters). Although there is no bibliography, ". . .the text is documented by constant reference to particular paragraphs of official uniform regulations, uniform specifications, general orders, the Library of Congress, and the National Archives. . ." (to quote the Author). Some readers may take exception to this fine work purely for the lack of bibliography or a list of books for future readings. But Mr. Steffen has blazed a new trail in military history with his Horse Soldier volumes. No previous text can match the author's scope in detailing the uniforms, gear and weaponry of the American horse soldier.

The book retails for $25, but considering the wealth of information and graphic support that it provides, that price is rediculously low.

C. B. Timmers

Law, Soldiers, and Combat
by Peter Karsten, Greenwood Press, 204 pgs.

Ten years ago American soldiers executed hundreds of men, women and children in what is known as the My Lai Massacre. The answers to who, what, where, when and even why were explored at the court-martial of William J. Calley, Jr.

In *Law, Soldiers, and Combat,* Peter Karsten addresses himself to the whys behind My Lai and war crime in general. After examining the conduct of combatants and their observance of the laws of warfare and identifying reasons such laws are violations of these laws.

Karsten takes a logical approach by expanding on the psychological "nature" and "nurture" concepts. The attributes the individual soldier brings to war and the situation that exists when he arrives play a part. Family background, learning abilities, social status, values and attitudes contribute to the internal makeup of an individual and cause one to act differently from another. One will violate the law another observes.

First person accounts related by the author are marvelous in showcasing how both heredity and environmental factors influence behavior and lead to or prevent war crimes. Some may oppose his views on the use of the atomic bomb in World War II against Japan and differ with his other opinions, but viewed in the author's terms and frames of reference, to this point, at least, he has produced a successful and incisive work. Of particular interest is the section on illegal orders and the conscience of the combatant.

Karsten then seeks to recommend solutions to halt these violations of the rules of war, but unfortunately it appears that he falls short.

One of the major factors Karsten cites leading to violations is that of sophisticated and impersonal weaponry. The technology of today has made it possible for man to destroy his world many times over in a matter of minutes. In 1951 address to a joint session of Congress Douglas MacArthur spoke on this very subject.

> "I know war as few other men now living know it, and nothing to me is more revolting. I have long advocated its complete abolition as its very destructiveness on both friend and foe has rendered it useless as a means of settling international disputes."

As he had done in 1945 at the surrender of Japan, MacArthur was again warning that the technology of modern warfare could ultimately put an end to the world.

Nations' war-making capacities today far exceed those available in the days of Hiroshima and Nagasaki. To exclude from a current discussion this all important aspect of warfare is indeed unfortunate and makes an otherwise fine effort seem incomplete. Perhaps a discussion of this type needs a broader sociological treatment yet, as the author observes, there seems to be a paucity of literature concerning just why these laws are broken and the remedies available to correct them. Perhaps in addition to those reasons cited by Karsten for the absence of such writings consideration should be given to the one just noted. Catastrophic war can begin and end in a very short time. Any discussion regarding war crimes of today may simply be academic if the button is pushed.

Tom Tunnington

Notes Officer

Projected Assignments for Officers Selected to Attend Officer Advance Courses (OAC)

Earlier this Fiscal Year, OPMD conducted a limited test program with selected OAC classes to determine if follow-on assignments could be accurately projected and announced to the officers prior to the OAC attendance. Anticipated benefits associated with the program were: 1.) elimination of uncertainty regarding the future so that professional and personal planning could be initiated early on; and 2.) to allow the officer to tailor the OAC elective program to suit the requirements of the follow-on assignment.

OPMD's analysis of the test indicates that the program was well received by the officers participating in the program and the OPMD's ability to project assignments 18-20 months in advance is adequate to support this technique for all OACs. Thus, effective with MIOAC class 3-79 beginning 18 May 79, officers selected for OAC will be advised on projected follow-on assignments. Key features governing the program are:

•Requests for Orders (RFO) assigning officers to the OAC will contain special instructions requesting an up-to-date preference statement be submitted to OPMD within 30 days of receipt of the RFO. This should include recent and current duty assignments, professional desires, medical/special schooling needs for dependents, planned leave addresses, and telephone numbers (Commercial/Autovon).

•Upon receipt of preference statements, OPMD will consider the officer's professional needs and personal desires as projected assignments are matched. Officers will begin to be advised on their projected assignment approximately 3-5 months prior to OAC report date, and certainly prior to their departure from their current duty station enroute to OAC. Some assignments, however, may not be completely confirmed until after reporting to the OAC, as in the case of officers being considered for Advanced Civil Schooling which requires application to and acceptance by the academic institution or certain nominative assignments such as ROTC, which require concurrence of the gaining organization.

•Projected assignments will normally be honored, but circumstances may dictate change in cases where events since the original assignment projection have altered the major considerations of professional development and personal needs. When a change is considered necessary, it will be coordinated with the officer concerned.

•Orders will be issued for the follow-on assignment following OPMD Branch visits to the OAC. The purpose of the visits will be to formally interview each officer and answer any questions regarding career development/progression, plus resolve all follow-on assignments.

The professional development needs of junior company grade officers in the formative years of an Army career are very important factors in the advanced assignment program. To do the job right, OPMD needs the support of both Supervisors/Commanders and the individual officer. DA Pamphlet 600-3 explains the officer's role in charting long range professional goals and provides a sample work sheet, DA Form 4190-R, for this purpose. All officers (whether or not firm career decisions have been made) should engage in near-term and long-term career planning. However, the junior officer cannot complete such planning in isolation. Supervisors/Commanders are encouraged to take an active role in coaching subordinates, bringing their more extensive Army experience to bear on career decisions facing the junior officer. This mutual process will provide our young officers that needed sense of purpose OPMD, and, in the case of OAC selectees, it should be appended to the updated preference statement.

Notes Enlisted

TWO-YEAR ARMY ROTC SCHOLARSHIPS

The application period for the Two-Year Army ROTC Scholarship Program for active duty Army enlisted personnel opens January 15, 1979. Winners for the 1979-80 school year will be announced in June.

These scholarships are designed to provide Army enlisted men and women an opportunity to obtain both a college degree and commission as an Army officer through participation in the ROTC program.

The awards will pay full tuition, books and educational fees, plus provide a living allowance of up to $1,000 a year each year the scholarship is in effect. In addition, winners will be paid for attending the Advanced Camp, normally held during the summer between the junior and senior years of college. Besides the scholarship benefits, winners may also take advantage of the Veterans Administration benefits to which they would normally be entitled.

Competition for scholarships is limited to enlisted personnel who have served at least one year on active duty; will be under 25 years of age on June 30 of the

Are you a Colonial Warrior?

Battlestar Galactica fans have noticed a strong resemblance between MI brass and the insignia of the Colonial Warriors. *Military Intelligence Magazine* wants your opinion, so break out the magnifying glass and tell us if that's MI brass. Use this postcard and please don't forget the stamp. Results of this poll will be published in the April-June issue of *Military Intelligence.*

____ **Yes** ____ **No**

Additional Comments:

What do you think of the January-March 1979 issue of Military Intelligence?

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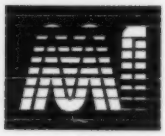

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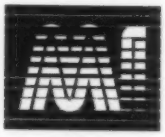

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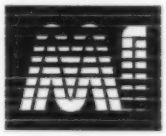

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year they are eligible for commissioning; and have received credit for at least two, but not more than two and one-half years of college. Also, to be considered by the final selection committee, applicants must have been accepted by a college for next fall's enrollment, have earned a GT score of 115 or higher, and be United States citizens.

Winners may attend any of the four-year colleges and universities hosting Army ROTC or one of the more than 500 non-host colleges which has a cross-enrollment agreement with a nearby host school.

Scholarship winners will receive an early discharge so they can arrive on campus in time to enroll in the 1979-80 fall term. Winners will also be required to enlist in the US Army Reserve prior to enrollment in the Army ROTC Advanced Course.

Upon successful completion of their military science and baccalaureate degree requirements, these former enlisted personnel will be commissioned as second lieutenants in either the Regular Army or the Army Reserve and will be obligated to serve four years on active duty.

Details on this program are contained in AR 145-1.

Applications must be requested by April 15, 1979; however, applicants have until May 1, 1979 to complete their applications. For further information and applications, write Army ROTC Scholarships, Fort Monroe, VA 23651.

PROMOTION

Ready to face the promotion board? Know whose responsibility it is to see that you are? It starts with you — but the NCO who recommends you also must be ready to help.

Your first stop should be the promotion section of personnel. They will make an appointment for you to review your records. A clerk will help you and will compute your points on a special worksheet. The max is 750.

Points are given for time-in-service, time-in-grade, civilian and military education, awards and decorations, your enlisted evaluation report (EER) and your skill qualification test (where applicable).

You'll need an SQT score of 80 plus although waivers are given in some cases with scores of 51 or more.

Your appearance before the board can net another 250 points. Of those, 40 are for self-improvement by civilian or military education. Another 30 are for class honors or Soldier of the Month.

The board president will evaluate attitude, leadership qualities, advancement potential for up to 40 points.

Personal appearance, military bearing and self-confidence are worth 30 points and the remaining 110 are for conversational skills, basic soldiering techniques, and a knowledge of world and military affairs.

Many units have study guides. Other helps are your basic Soldiers Manual and the morning newspaper. Remember the mirror in time to get that haircut, check out that uniform, and practice that salute.

THE BOARD

You have studied like crazy, had your uniform pressed, and spent hours polishing your brass and shining your shoes. Now you are ready to face the president of the board. Your name has been called.

Knock firmly on the door, open it sharply and march up to the board president. (Make sure you know who it is and where he or she is sitting.) Halt within two paces of the table, give your sharpest salute and report in a loud clear voice.

That first impression is important, so make the most of it.

The next part is easy. The president will tell you to take a seat and relax. Do an about face, move to the seat, do another about face and sit — then relax.

Do not slouch down and cross your legs. Sit erect with your hands folded in your lap. Listen carefully to the questions. Above all, keep your eyes on the person talking to you.

Answer the questions confidently. If you don't know, don't bluff: The board knows the answers and does not expect all the right ones. If you only know where to find an answer, tell them. That counts too. The board is not a test. Wrong answers do not fail you entirely.

The board is also looking for leadership traits so learn them and practice them before that big day.

At the end of the question period, the board president will tell you you are dismissed. Don't just walk out. The board will be watching. Stand up at the position of attention, render another snappy salute, then march out closing the door carefully behind you.

Not recommended for promotion? You can return at a later date. If you make the list without scoring enough points to meet your cutoff score, you can request re-evaluation by another board.

A word of caution is needed. You better be prepared for that second board. If you go before them and are not recommended, you will be taken off the list and must wait at least another three months before you try again.

An Army-wide recomputation of promotion points twice a year does help those with high cutoff scores. If you have earned additional points, they will be added to your total score.

Minimum promotion points needed to get on promotion list with board recommendation.

450 points for Secondary Zone E-5
500 points for Primary Zone E-5
550 points for Primary and Secondary Zone for E-6

Adapted from a story by Marie M. Russo in the Fort Lee Traveller.

INTELLIGENCE TRAINING LITERATURE

The JUL-SEP 78 issue of MI Magazine contained an article on Intelligence Training Literature prepared by the United States Army Intelligence School at Fort Devens, Massachusetts (USAISD).

The following list has been prepared to acquaint our readers with some of the key publications planned for publication in FY79.

TRAINING CIRCULARS (TC)

30-47, Tactical Intercept Site Selection: Detailed procedures for selecting tactical EW intercept sites. Written for the platoon leader/team chief of an intelligence collection team.

30-48, Conversion of WARSAW PACT Grid System to UTM: Written to familiarize intelligence personnel with the map grid system used by the WARSAW PACT nations and to provide a method of converting that system into US military grid coordinates.

(C) 30-49, AN/ALQ-151, QUICK FIX (U): Written for the tactical commander, the CEWI unit commander, and CEWI unit personnel. Provides a detailed description of the airborne QUICK FIX system, its use, deployment and interface with other air and ground EW systems.

(C) 30-50, AN/MSQ-103, (U): Gives a detailed description of the use, deployment, capabilities, and limitations of this vehicular-mounted, SIGINT/ESM system. Written for the tactical commander, the CEWI commander and CEWI operational personnel.

(C) 30-7, AN/TSQ-114, TRAILBLAZER (U): Provides a detailed introduction to this new vehicular-mounted SIGINT/ESM system. Written for the tactical commander, the CEWI commander, and CEWI operational personnel.

30-8, AN/TLQ-17A: A detailed description of the Army's newest vehicular/air transportable HF/VHF jammer. Describes its use, deployment, and interface with other EW systems. Written for the supervisor or commander.

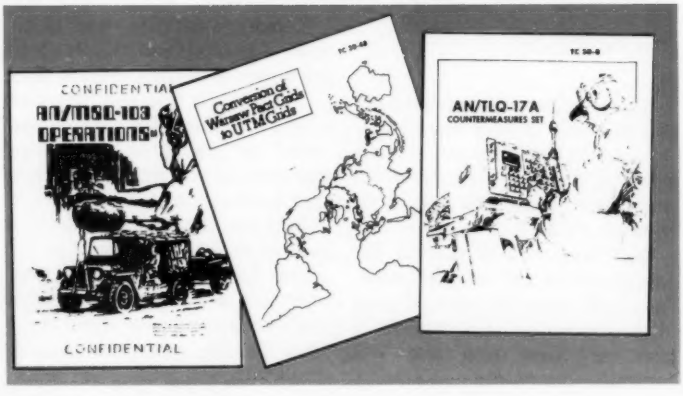
30-9, ECM Mission Planning: A detailed explanation of methods and procedures for determining jamming information such as power output, antenna height, and maximum distance to targets. Written for the ECM mission planner or his commander.

In addition to the above list, USAISD is preparing TC's on the following subjects, but permanent numbers have not yet been assigned.

TC 30-999ZD, AN/TRQ-30 and AN/TRQ-32

(C) TC 30-999AD, Tactical SIGINT/EW Equipment Reference Handbook (U)

The publication of a new GTA called the "EW WHEEL" is also planned to compliment TC 30-9, ECM Mission Planning. The EW WHEEL is used by ECM mission planners to determine the jamming geometry required to suc-



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cessfully operate ECM equipment. It consists of 4 disks and a center pivot, clear cursur with hairline. The disks have numbers on them that have been derived from mathematical calculations. Through manipulation of the wheels and cursur, answers to formulas can be determined.

Commanders can assist USAISD in its mission by placing training literature high on their list of interest items. The users of training literature, specifically the commander, the staff and the soldier, must let their desires, needs and suggestions be known. Although subject matter experts are available at USAISD to write this literature, the needs of the users in the field cannot always be accurately determined at USAISD. The user at the unit level is in the best position to determine what is needed to guide and train the soldier to better perform his or her job.

Intelligence and electronic warfare doctrine development is an ever-changing process which requires constant evaluation of concepts and methods to make them most effective. USAISD will consider any new ideas or suggestions you may have in the development of doctrinal and training literature. Forward your comments to:

Deputy Commandant
US Army Intelligence
School, Devens
ATTN: ATSIE-TD-TS-TL
Fort Devens, MA 01433

Telephone contact with the following individuals is encouraged:

Mr Daniel Taylor
Mr Eddie Hiett
AUTOVON 256-3271/3406

Comments should suggest a title, purpose and scope, a brief description of the type of material needed, and why it should be covered.

CPT Ralph L. Morgridge
Training Lit, Devens

OPFOR Literature

USAICS, as the TRADOC Opposing Force (OPFOR) proponent, is responsible for preparing training media to support the OPFOR program (AR 350-2). This program is a valuable asset to the unit intelligence officer in integrating OPFOR concepts into training programs.

OPFOR: Europe

FM 30-102, *Opposing Forces Europe* is presently under review and revision. This manual was an initial and rapid response to support user requirements for unclassified data on Soviet military forces. While the final manuscript is projected for fourth quarter FY 1980, users may submit recommended changes/additions NLT 1 July 1979. DA Form 2028 (Recommended Changes to Publications) may be used for detailed comments or direct telephonic communication for brief comments is acceptable. Communications should be forwarded to the Commander, US Army Intelligence Center and School, ATTN: ATSI-TD-SPO, Fort Huachuca, AZ 85613, AUTOVON 879-5825/3431. Additional copies may be requisitioned (DA Form 17) from the US Army Adjutant General Publications Center, 2800 Eastern Boulevard, Baltimore, MD 21220.

OPFOR: North Korea

To support the North Korean module of the OPFOR program, the coordinating draft of TC 30-37, *Opposing Force: North Korea,* has been forwarded to selected units for review. Additional draft copies of this circular are not available, but units that have checked blocks 273, 287, and 288 on DA Form 12-11B will automatically receive distribution of the published document. Release of final manuscript for publication is programmed for first quarter FY 1980.

User Requirements

The basis of the OPFOR program is to improve force readiness through realistic training, using a credible Opposing Force and/or Soviet or North Korean doctrine and tactics. Your training requirements are extremely important in projecting appropriate OPFOR products, whether literature, audiovisual, or training aids/devices. Recommendations for specific requirements suitable for Army-wide dissemination may be forwarded to the USAICS (address above).

ROBERT J. CARTER
Chief, OPFOR/EW Division
DTD, USAICS

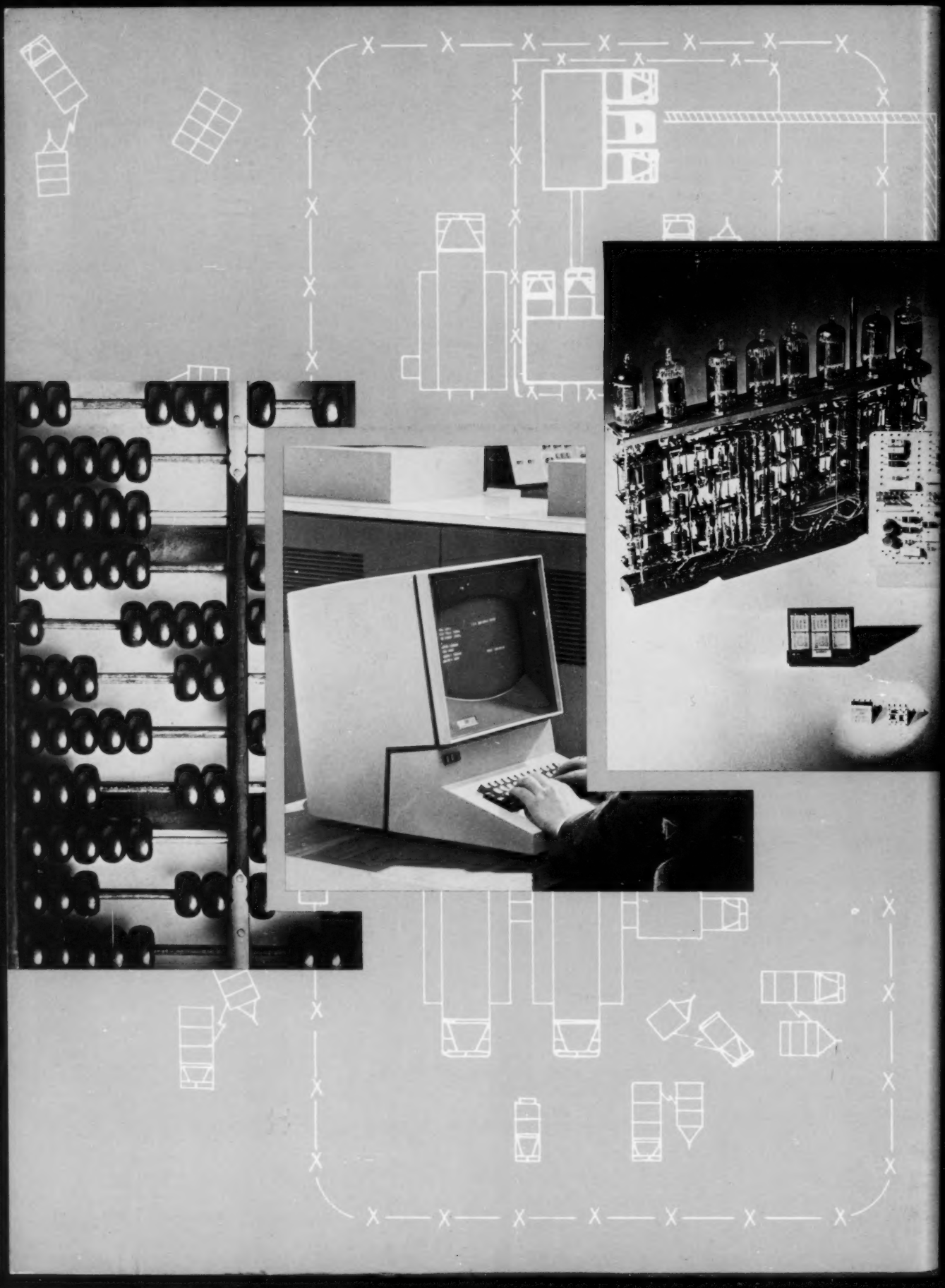
New Interrogator and Imagery Interpreter Soldier's Manuals

The Soldier's Manuals, FM 30-96C, *Interrogator,* and FM 30-96D, *Imagery Interpreter,* are being revised and greatly expanded. Many of the changes are based on input from the 96C and 96D field via telephonic surveys and written questionnaires conducted by the EPMS Branch.

Draft coordination copies of 96C Soldier's Manual should be sent to numerous interrogation elements in early 1979. A questionnaire to be enclosed will serve as a guide for your comments.

The initial 96D SQT, Skill Levels 1 through 4, will take place between 1 Feb 79 to 30 Sep 79. Those 96D's taking an SQT should have available the present Soldier's Manual and their SQT notification 60 days prior to testing.

You may send suggestions, as well as any questions on 96C or 96D matters in general to: Commander, United States Army Intelligence Center and School, ATTN: ATSI-TD-ITE, Fort Huachuca, Arizona 85613. Our Autovon is 879-3355/2465.

NOTE: the 96C Coordination Draft will have no bearing on the SQT to be given in 1979.

SHADRACK R. HENDRICKS
1 LT, MI
EPMS Branch, DTD